SWIM Indicator Handbook

October 2009

STATEWIDE WATER INFORMATION MANAGEMENT SYSTEM

www.swim.qldwater.com.au

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1 Reporting and SWIM

1.1 SWIM purpose

SWIM: State-wide Water Information Management

The SWIM project was developed to make it easier for Queensland's Water Service Providers to supply data requested by State and Commonwealth Governments, and to help them get the greatest value from their own data.

All Queensland Local Governments who are water service providers will have access to the SWIM online data portal to enter data from the 2008-9 financial year.

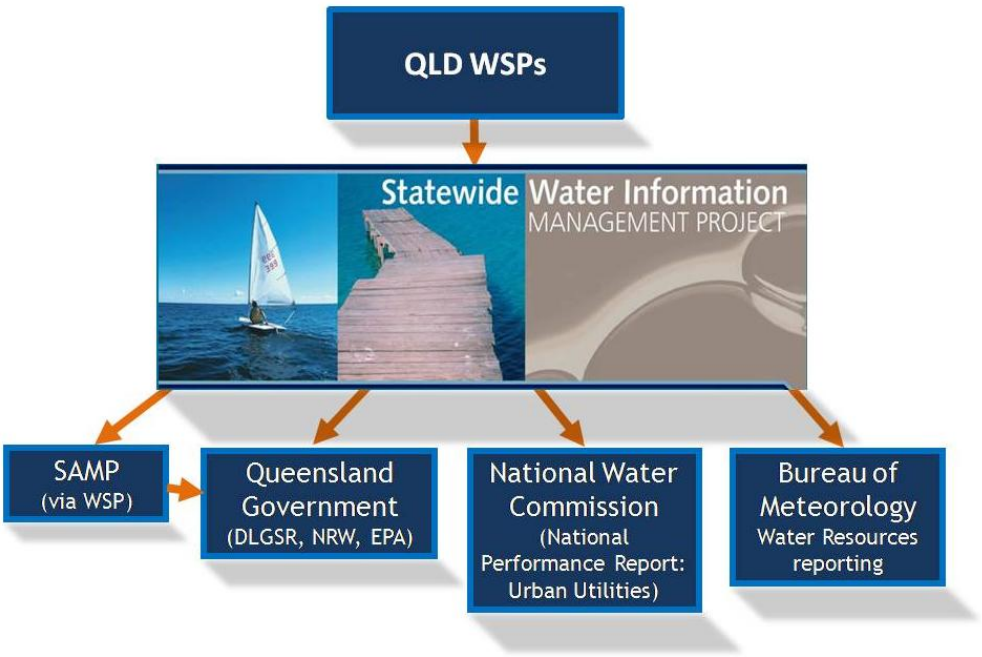
Queensland WSPs are required to submit data to multiple government agencies. Prior to SWIM, WSPs were required to submit data on many occasions throughout the year, to many different government departments (or different sections within departments). Often these data requests were for the same or similar data.

SWIM is a significant advancement in the challenge to streamline water reporting by WSPs. As shown in figure 1.1 below, currently SWIM streamlines the reporting for the Queensland Government Departments of DERM, DIP and EPA, The National Performance Report (for the National Water Commission) and Bureau of Meteorology (Water Regulations Act 2008).

From the 2007-2008 reporting year, SWIM replaced the direct submission of water data to DERM and DIP/EPA. SWIM offers an alternative submission method for NPR reporting and BoM reporting. SAMP reporting cannot be satisfied by SWIM reporting alone, but SWIM data submission will substantially increase the efficiency of SAMP annual reporting.

As the SWIM system proves it benefits to both WSPs and recipient organisations, the additional reporting of water data that is not yet streamlined through SWIM can (and will) be included.

Figure 1.1



1.2 Reporting requirements

The current version of SWIM has been designed to streamline reporting of five major reports (see Table 1). Table 1 also summarises the number of indicators required to satisfy complete reporting for each of the five reports, and demonstrates the benefits of streamlined reporting through SWIM.

Report	Number of Indicators required/requested
Queensland Government Water Data: DERM	200
Queensland Government Water Data: DIP	170
Strategic Asset Management Plan (SAMP) and annual reporting	56
Bureau of Meteorology (BoM) (some WSPs only)	50
National Performance Report (NPR) (some WSPs only)	151
Total	**627**
SWIM total (which removes for duplicate indicators/reporting)	**256**

Appendix A identifies the specific indicators required for each of these reports. The general requirements of each of these reports are outlined below.

1.2.1 Queensland Government water data: DERM & DIP

For many years the Queensland Government departments with responsibilities for natural resources and local governments have requested water data annually from all Queensland local government water service providers. Although the submission of this data is not mandatory (it is not enforced through legislation, to date), submission rates of this data have traditionally been high.

The Department of Infrastructure and Planning (Local Government) use this data, along with other financial data requested from local governments, in their role of providing support and oversight of local government business and management. The Department of Environment and Resource Management use the water data in their annual water report describing the state of Queensland's water resources.

The timing of this reporting has evolved to coincide with that of the National Performance Report – both require data once per year, representing the previous financial year. This is usually due around September of each year.

1.2.2 National Performance Report (NPR)

The "National Performance Report: urban water utilities" delivers on the commitment of the Commonwealth, states and territories in the National Water Initiative to 'report independently, publicly, and on an annual basis, benchmarking of pricing and service quality for metropolitan [and] non-metropolitan… water delivery agencies.'

The report builds on WSAAfacts which was a benchmarking report for major utilities above 50,000 connected properties produced by the Water Services Association of Australia, from 1996 to 2005. The first National Performance Report was produced in 2005–06 and introduced non-major utilities with 10,000 properties or more. In 2006–07, the report introduced a 'Comparative Analysis', which provided commentary and analysis on 29 selected performance indicators.

The NPR remains focussed on the larger WSPs. In Queensland participation in the NPR by large WPSs is not mandatory, but for the purposes of industry development and WSP management, WPSs are strongly encouraged to participate, and most do.

Data representing each financial year is submitted around September of each. The final report is released to the public around February of the following year.

1.2.3 Bureau of Meteorology (BoM) – Water Resources Information

Purpose
To secure the long term water supply of all Australians, the Australian Government has announced Water for the Future, a $12.9 billion water investment program. This includes $450 million for the 'Improving Water Information Program' administered by the Bureau of Meteorology and backed by the Commonwealth Water Act 2007 and key stakeholders.

The Bureau will enhance the quality and utility of Australia's water information by producing the National Water Account, supported by a truly national water monitoring and data collection network. The program includes development and maintenance of an integrated, national water information system freely accessible to the public.

Water Regulations 2008
To support BoM in this expanded role, a new piece of legislation was enacted in 2008: Water Regulations Act 2008.

The Water Regulations 2008 commenced on Monday 30 June 2008. The Regulations individually name over 200 persons who are required to give the Bureau specified water information that is in their possession, custody or control. You can go to the 'Water Regulations Online' tool to find out if your organisation is named in the Regulations.

BoM's expanded responsibilities under the Water Act 2007 are:

- Issuing national water information standards
- Collecting and publishing water information
- Conducting regular national water resources assessments
- Publishing an annual National Water Account
- Providing regular water availability forecasts
- Giving advice on matters relating to water information
- Enhancing understanding of Australia's water resources

More information about the regulations is available at the BoM's website at :
http://www.bom.gov.au/water/regulations/water-2008.shtml

Who is required to report what?
Not all WSPs are required to report data to BoM. The regulations name various organisations from around Australia as being required to report various types of water information. These organisations include local government water service providers, as well as regional natural resource management groups, water authorities, and state governments. The following Queensland local government WSPs are named in the regulations:

- Cairns Regional Council
- Cloncurry
- Fraser Coast Regional Council
- GAWB
- Gold Coast CC
- Logan Council
- Redlands Council
- Rockhampton Regional Council (FRW)
- Southern Downs
- Sunshine Coast Regional Council
- Torres Shire
- Townsville
- WBW (Hervey Bay)
- Burdekin
- Cassowary
- Scenic Rim
- Hinchinbrook
- Ipswich City Council
- South Burnett Council
- Toowoomba Regional Council
- Mackay City Council
- Whitsunday Council
- Brisbane City Council
- Croydon Council
- Dalby Council
- Moreton Regional Council

The data required from local government WSPs by BoM includes from watercourse quantity and quality, groundwater data, meteorological data, water storage data, water sources and uses and water use management. The data have varying requirements with respect the frequency of sampling/collection and reporting. Data may be required to be:

- Sampled/collected and submitted to BoM annually
- Sampled/collected weekly (or as often as possible) and reported annually
- Sampled/collected and reported monthly
- Sampled/collected and reported daily.

Data must be submitted in an xml format written specifically for this BoM reporting, named WDTF (water data transfer format). Translating data into this format requires coding the data using the WDTF language and requires a high level of understanding of xml and data systems. SWIM is designed to receive data in either excel or text (csv) format and complete this translation into xml before sending the data to BoM. Some information about the WDTF format is provided in appendix B. More information about the WDTF is available from the BoM website: http://www.bom.gov.au/water/regulations/givinginfo.shtml

SWIM is a data broker – not provider or owner
The process of submitting data to BoM requires the data be sent to the specific ftp folder setup by BoM for each reporting organisation; each Queensland WSP has an ftp folder on the BoM ftp server that is password protected. SWIM has stored a copy of this access information (provided by each WSP to ***qldwater***) to allow SWIM to send the data on behalf of the WSP. The data sent by SWIM is not classified as ***qldwater*** data – ***qldwater*** is not a data owner or data provider of WSP data; qldwater is acting as a data broker.

1.2.4 Strategic Asset Management Plan (SAMP) and annual reporting

Extracts from “Guidelines for Preparing Strategic Asset Management Plans”, 2002, QG.

> The Water Supply (Safety and Reliability) Act 2008 requires service providers to have an approved Strategic asset management plan (SAMP) unless an exemption has been granted. The Act requires service providers to take certain actions designed to ensure continuity of the services they supply to customers, including preparing a SAMP which documents service standards (set by the service provider) as well as an operations, maintenance and renewals strategy for achieving these standards.
>
> Service providers must submit an annual report for each financial year after a SAMP has been approved. The report must be given to the regulator within 120 business days of the end of the financial year 17 (s430). As annual reporting requirements also apply to Customer Service Standards, service providers may submit a combined SAMP/CSS annual report.
>
> The annual report must measure the service provider’s performance for the financial year against the SAMP, and must
> 1. Describe Level of service standards, which should include:
>   • “actual” levels of service achieved (this could be in excess of standards set by service provider);
>   • an appropriate confidence grading 18 for the data reported;
>   • any statements qualifying the data reported - this is not a mandatory requirement, but may be appropriate in some circumstances such as where extreme wet weather events have affected data for a particular year.
> 2. Document actions taken by the service provider to implement the SAMP (including application of funds)
> 3. Document outcomes of any regular reviews or audits

It is not (yet) possible to prepare and submit a complete SAMP annual report through SWIM. However, SWIM can assist in preparing the first of these three components of the SAMP annual report. After submitting SWIM data, the report “SWIM SAMP data 08-09” can be downloaded. This excel file contains all the performance related SAMP indicators, in formats (tables) ready to be pasted in to the SAMP annual report. If confidence gradings are also submitted to SWIM, these will be included in the SWIM-SAMP report.

Schemes versus WSP-wide data

Extracts from “Guidelines for Preparing Strategic Asset Management Plans”, 2002, QG.

> A SAMP must be prepared for each of the service provider’s registered services. A registered service is a “water service” or “sewerage service” for which the person/entity is a registered service provider. Many service providers will supply more than one registered service (i.e. both “water” and “sewerage” services). In these circumstances, a combined SAMP that addresses all services provided may be prepared.
>
> A “water” and/or a “sewerage” service is taken to be the whole service and need not be separated into part, individual or stand alone schemes. For example, a service provider for a registered “sewerage” service may actually have three separate sewerage schemes serving three towns. In this case, all that is required is a single SAMP for the provision of the “sewerage” service as a whole. However, any significant differences between schemes, or the OM&R strategies used for these schemes, must be noted in the SAMP. A service provider can also decide to prepare different SAMPs for different schemes, if it wants to.
>
> More information is available from:
> http://www.nrw.qld.gov.au/compliance/wic/service_provider.html

To enable multiple schemes to be represented in a SAMP (and annual report), the SWIM user may enter data for more than one scheme (of each type: water, sewerage, recycled). However if the WSP manages their services according to only one scheme (of each type) and the WSP’s SAMP describes only one scheme (of each type), then this is what should be represented in SWIM data. In the case of one scheme (of each type), the schemes-data would be same as the WSP-wide data.

For the purposes of the SWIM database, at least one scheme (of each type) must be entered, and the data should be assigned to the scheme – SWIM will also assign it to the WSP-wide values. For more information see section 2.2.

2 SWIM indicators – definitions and information

2.1 Data (indicators) required

Data is required in the following categories

The

Category	Subcategory
Organisation data	Organisational data
Connections	Connections - Water
	Connections - Sewerage
Sources & Uses of Water	Sources of Water
	Uses of Water Supplied
	Waste water
	Uses of Recycled Water
Assets & asset performance	Water Treatment and Supply Assets
	Sewerage Assets
	Recycled Water Assets
	Asset Performance - Water
	Asset Performance - Sewerage
Customer Service	Customer Service - sewerage
	Customer Service - water
	Customer Service - overall
Compliance	Compliance & treatment- sewerage
	Compliance - Drinking Water
Environmental	Biosolids
	Greenhouse Gas Emissions
	Revenue
Costs & Finance	Costs
	Capital Expenditure
	Financial
	Capital Works Grants
	Net profit after tax - Community Service Obligations
	Water Pricing:
	Sewerage Pricing:
	Pricing
Water resources	Surface Water flows
	Groundwater
	Storages
	Meteorology
Water Quality	Water Quality

following pages provide the definitions for every SWIM indicator.

The definitions are sourced from, in order of p**Reference:**

- The NPR (as a nationally-accepted document)
- The Queensland SAMP guidelines
- DERM and DIP operational definitions
- Qldwater (where no other agreed definitions are available)

2.2 Spatial resolution of data: Schemes and sites

The data to submit to SWIM has varying requirements for the spatial resolution (or scale) at which the data is collected. These are determined by the reporting requirements, as follows:

Reporting requirement	Spatial resolution of data
DERM	WSP
DIP	WSP
NPR	WSP
SAMP	schemes
BOM	Finest resolution available (i.e. schemes and sites)

Schemes for non-BoM data

A scheme is taken to be a geographically-section of the water or sewerage scheme that is operationally separate from other sections. For example, a WSP that covers a large region may divide their water services into say, three sections representing three geographic divisions of the region, each with separate water supply service(s). As these three water supply systems are not connected to each other, and might be comprised of different types of water supply infrastructure of differing ages (and conditions), they are usually managed separately. Operationally, it is more beneficial to look at performance of these schemes separately – if their data is lumped together some emerging problems may not be detected.

In general all SWIM annual data (except BoM data) must be schemes-based data. This vastly improves the usability of SWIM data and SWIM reports by WSPs; scheme data is more useful for operational purposes, and will allow SWIM to provide a data report back to the Council in a format useful for developing and reporting against Council's Strategic Asset Management Plan (SAMP).

SWIM database will automatically calculate the WSP-wide values that are required for reporting to the QG (DERM, DIP) and NPR from the scheme-based data that is entered.

There are some indicators for which schemes-based data is not useful or obtainable – for these, WSP-wide values are to be entered. These are identified in the SWIM systems.

Default schemes
In most cases, SWIM will already contain some default scheme names for WSPs. These must be checked and can easily be changed. At present SWIM will only have default scheme names – because additional information is required about every scheme, every WSP must update their schemes metadata at SWIMonline.

Default schemes for non-amalgamated WSPs:

- If a WSP entered schemes to SWIM last year (07-08 reporting year), these will be the default schemes in SWIM for the 08-09 reporting year.
- If a WSP did not enter schemes to SWIM last year (i.e. entered only WSP-wide values, or didn't use SWIM), there will be no default schemes.

Default schemes for amalgamated WSPs:

- If none of the amalgamated WSPs entered schemes names to SWIM for 07-08 reporting then the default schemes of 08-09 will be the old WSP names. This means old data submitted by these WSPs will be linked to the amalgamated WSP.
- If all of the amalgamated WSPs entered schemes names to SWIM for 07-08 reporting then the default schemes of 08-09 will be **all** the schemes that previously belonged to each of the WSPs.
- If some of the amalgamated WSPs entered schemes names to SWIM for 07-08 reporting and some did not, then the default schemes will be a combination of schemes that

previously belonged to each WSP (where they are available) and old WSP names (where there is no schemes information).

Types of schemes:

- Water schemes (a distribution system supplying only potable water)
- Nonpotable water schemes (a distribution system supplying nonpotable water, e.g. raw water, recycled water)
- Sewerage schemes (sewage collection and treatment system, may include recycling facilities)

Schemes and sites for BoM data

BoM has required data at the finest spatial (and temporal) resolution available, for most indicators. For Water sources and uses data (category 7 of BoM data), schemes-scale data is acceptable. The other BoM categories of data typically represent data collected from a single location/point (e.g. water quality monitoring site, meteorological station, flow gauge, water storage) and so the site-scale data must be submitted.

2.3 Temporal resolution of data

The data to submit to SWIM has varying requirements for the temporal resolution (or scale) at which the data is collected. These are determined by the reporting requirements, as follows:

Reporting requirement	Temporal resolution of data
DERM	annual
DIP	annual
NPR	annual
SAMP	annual
BOM	Finest available (and reported either daily, monthly or annually)

SWIM systems have been developed to allow submission of data to meet these requirements – refer to submission procedures sections.

3 Indicator definitions & information

NOTE: the most recent definitions are available from www.swim.qldwater.com.au

3.1 Connections

SWIM code: CS1

Title: Population receiving water supply services

SWIM category: Connections - Water & Sewerage

Definition:

The total population receiving water/sewerage services from the water business. The figure may be premised on census data obtained from the Australian Bureau of Statistics.

Notes:

• The owner and tenant of a rented property are NOT counted as separate properties.

• A sewerage property which is also a trade sewerage property counts as one non-residential connected property.

Reference: NPRF Handbook 08-09

Units: 000s

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: HL3

This indicator is reported/used for: DERM, DIP, NPR(C1), SAMP: Section 2: Overview of services,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: CS2

Title: Connected Residential properties - water supply

SWIM category: Connections - Water & Sewerage

Definition:

A connected water property is:

- connected to the licensee's water system

- the subject of billing for water supply collection – fixed and /or consumption, and

- any property which, at the end of the reporting period, is connected to the water system and is separately billed for the water services – fixed and/or consumption.

This includes:

- a connected non-rateable property, and

- a connected but non-metered property.

It does NOT include:

- a body corporate

- a rated but unconnected property, or

- a non-real property or strata garages i.e. a master meter for a block of separately metered strata Title flats

Non strata Title flats or Units: Where a utility has no more than 10% of its properties as non strata Title flats or units, it is acceptable to report each such block of flats or units as one property.

Reference: NPRF Handbook 08-09

Units: 000s

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: CS4, WA12

This indicator is reported/used for: DERM, DIP, NPR(C2),

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: CS3

Title: Connected Non-residential properties - water supply

SWIM category: Connections - Water & Sewerage

Definition:

A connected water property is:

- connected to the licensee's water system

- the subject of billing for water supply collection – fixed and /or consumption, and

- any property which, at the end of the reporting period, is connected to the water system and is separately billed for the water services – fixed and/or consumption.

This includes:

- a connected non-rateable property, and

- a connected but non-metered property.

It does NOT include:

- a body corporate

- a rated but unconnected property, or

- a non-real property or strata garages i.e. a master meter for a block of separately metered strata Title flats

Non strata Title flats or Units: Where a utility has no more than 10% of its properties as non strata Title flats or units, it is acceptable to report each such block of flats or units as one property.

Reference: NPRF Handbook 08-09

Units: 000s

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: CS4

This indicator is reported/used for: DERM, DIP, NPR(C3),

If used in NPR reporting, is this an auditable indicator? yes unless only reporting total (CS4)

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: CS4

Title: Total connected properties - water supply

SWIM category: Connections - Water & Sewerage

Definition:

This indicator is derived others as follows:

Total number connected properties: water supply[CS4] = Number connected residential properties: water supply [CS2] + Number connected non-residential properties: water supply [CS3]

Reference: NPRF Handbook 08-09

Units: 000s

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: WA30, AS3, CS9, CS10, CS17, CS55, CS18, CS19, CS12, CS13, EN9, EN11, FN5, FN7, FN11, FN13, FN34

This indicator is reported/used for: DERM, DIP, NPR(C4), SAMP: Section 2: Overview of services,

If used in NPR reporting, is this an auditable indicator? yes if not reporting and auditing CS3

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: CS5

Title: Population receiving sewage services

SWIM category: Connections - Water & Sewerage

Definition:

The total population receiving water/sewerage services from the water business. The figure may be premised on census data obtained from the Australian Bureau of Statistics. Notes:

• The owner and tenant of a rented property are NOT counted as separate properties.

• A sewerage property which is also a trade sewerage property counts as one non-residential connected property.

Reference: NPRF Handbook 08-09

Units: 000s

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(C5), SAMP: Section 2: Overview of services,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: CS6

Title: Connected Residential properties - sewerage

SWIM category: Connections - Water & Sewerage

Definition:

A connected sewerage property is:

- connected to the licensee's sewerage system

- the subject of billing for sewerage collection – fixed and /or consumption, and

- any property which, at the end of the reporting period, is connected to the sewerage system and is separately billed for the sewerage services – fixed and/or consumption.

This includes:

- a connected non-rateable property, and

- a connected but non-metered property

It does NOT include:

- a body corporate

- a rated but unconnected property, or

- a non-real property or strata garages i.e. a master meter for a block of separately metered strata Title flats

Non strata Title flats or Units: Where a utility has no more than 10% of its properties as non strata Title flats or units, it is acceptable to report each such block of flats or units as one property.

Reference: NPRF Handbook 08-09

Units: 000s

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: CS8

This indicator is reported/used for: DERM, DIP, NPR(C6),

If used in NPR reporting, is this an auditable indicator? yes, unless only reporting total (CS8)

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: CS7

Title: Connected Non-residential properties - sewerage

SWIM category: Connections - Water & Sewerage

Definition:

A connected sewerage property is:

- connected to the licensee's sewerage system

- the subject of billing for sewerage collection – fixed and /or consumption, and

- any property which, at the end of the reporting period, is connected to the sewerage system and is separately billed for the sewerage services – fixed and/or consumption.

This includes:

- a connected non-rateable property, and

- a connected but non-metered property

It does NOT include:

- a body corporate

- a rated but unconnected property, or

- a non-real property or strata garages i.e. a master meter for a block of separately metered strata Title flats

Non strata Title flats or **Units:** Where a utility has no more than 10% of its properties as non strata Title flats or units, it is acceptable to report each such block of flats or units as one property.

Reference: NPRF Handbook 08-09

Units: 000s

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: CS8

This indicator is reported/used for: DERM, DIP, NPR(C7),

If used in NPR reporting, is this an auditable indicator? yes, unless only reporting total (CS8)

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: CS8

Title: Total connected properties - sewerage

SWIM category: Connections - Water & Sewerage

Definition:

This indicator is derived others as follows:

Total number connected properties: sewerage[CS8] = Number connected residential properties: sewerage [CS6] + Number connected non-residential properties: sewerage [CS7]

Reference: NPRF Handbook 08-09

Units: 000s

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: WA19, AS6, CS36, CS11, EN10, EN11, FN6, FN12, FN35

This indicator is reported/used for: DERM, DIP, NPR(C8), SAMP: Section 2: Overview of services,

If used in NPR reporting, is this an auditable indicator? yes if not reporting and auditing CS6 & CS7

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

3.2 Water sources

SWIM code: WA1

Title: The total volume of water taken from surface water

SWIM category: Sources of Water

Definition:

The total volume of water (potable and non-potable) abstracted by the utility from surface water sources such as dams, rivers or irrigation channels during the reporting period.

Note:

1. Please report zero if no water is taken from this source

Reference: NPRF Handbook 08-09

Units: ML

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: WA7

This indicator is reported/used for: DERM, DIP, NPR(W1), BoM(7a),

If used in NPR reporting, is this an auditable indicator? yes, unless only reporting WA7

Reporting frequency: annual

Sampling/collection frequency: weekly (BoM), annual (NPR, QG)

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: WA2

Title: The total volume of water taken from groundwater

SWIM category: Sources of Water

Definition:

The total volume of water (potable and non-potable) abstracted from groundwater during the reporting period. To avoid double counting this excludes volumes sourced from groundwater supplies that have been artificially recharged using sources of water that have been counted elsewhere i.e. rivers, desalination plants, sewage treatment plants (recycling). Other forms of artificial recharge (i.e. storm water) not counted elsewhere are to be included.

Note:

1. Please report zero if no water is taken from this source

Reference: NPRF Handbook 08-09

Units: ML

Comparison to SWIM definition 07-08: materially the same (clarifies include potable and nonpotable)

This indicator is used to derive the following indicators: WA7

This indicator is reported/used for: DERM, DIP, NPR(W2), BoM(7b),

If used in NPR reporting, is this an auditable indicator? yes, unless only reporting WA7

Reporting frequency: annual

Sampling/collection frequency: weekly (BoM), annual (NPR, QG)

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: WA3

Title: The total volume of water taken from desalination

SWIM category: Sources of Water

Definition:

The total volume of water (potable and non-potable) sourced from desalination plants during the reporting period.

Note:

1. Please report zero if no water is taken from this source

Reference: NPRF Handbook 08-09

Units: ML

Comparison to SWIM definition 07-08: materially the same (clarifies include potable and nonpotable)

This indicator is used to derive the following indicators: WA7

This indicator is reported/used for: DERM, DIP, NPR(W3), BoM(7c),

If used in NPR reporting, is this an auditable indicator? yes, unless only reporting WA7

Reporting frequency: annual

Sampling/collection frequency: weekly (BoM), annual (NPR, QG)

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: WA4

Title: The total volume of water taken from recycling

SWIM category: Sources of Water

Definition:

The total volume of water supplied by the water utility sourced from recycled water during the reporting period including recycled water from direct or indirect reuse. This should be the sum of residential, industrial/commercial, municipal irrigation and on-site substitution (where it replaces potable water). Water supplied for agribusiness by the utility should also be included where potable water (or raw supply to the potable system) would normally be used.

Note:

1. This differs from Indicator W26; Total recycled water supplied (ML) where any agricultural and on-site uses are counted.
2. Please report zero if no water is taken from this source

Reference: NPRF Handbook 08-09

Units: ML

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: WA7

This indicator is reported/used for: DERM, DIP, NPR(W4), BoM(7d),

If used in NPR reporting, is this an auditable indicator? yes, unless only reporting WA7

Reporting frequency: annual

Sampling/collection frequency: weekly (BoM), annual (NPR, QG)

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: WA5

Title: The total volume of water received from bulk supplier / infrastructure operators

SWIM category: Sources of Water

Definition:

The total volume of water (potable and non-potable) purchased from another utility or entity outside this utility's geographic area of responsibility. The volume of water will include water which is subsequently exported (sold) to another utility.

Notes about reporting this indicator for different schemes (for SWIM):

Schemes reporting: Water purchased/provided from another scheme within the same WSP-area or from organisation outside the WSP area should be reported (for the scheme receiving the water).

To calculate the WSP-wide value for this indicator, only include the schemes purchases if the water was provided by another organisation outside the WSP-area. If the water was provided by another scheme within the same WSP-are do not include this in the WSP-wide total (i.e. this total should include only water from outside the WSP area).

Note:

1. Please report zero if no water is taken from this source

Reference: NPRF Handbook 08-09; qldwater (for schemes reporting)

Units: ML

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: WA7

This indicator is reported/used for: DERM, DIP, NPR(W5), BoM(7e),

If used in NPR reporting, is this an auditable indicator? yes, unless only reporting WA7

Reporting frequency: annual

Sampling/collection frequency: weekly (BoM), annual (NPR, QG)

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: WA6

Title: The total volume of bulk recycled water purchased

SWIM category: Sources of Water

Definition:

The total volume of recycled water purchased from another utility or another entity outside this utility's geographic area of responsibility.

Note: Please report zero if no water is taken from this source

Notes about reporting this indicator for different schemes (for SWIM):

Schemes reporting: Recycled water purchased/provided from another scheme within the same WSP-area or from organisation outside the WSP area should be reported (for the scheme receiving the water).

To calculate the WSP-wide value for this indicator, only include the schemes purchases if the water was provided by another organisation outside the WSP-area. If the water was provided by another scheme within the same WSP-area do not include this in the WSP-wide total (i.e. this total should include only water from outside the WSP area).

Reference: NPRF Handbook 08-09; qldwater (for schemes reporting)

Units: ML

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: WA7, WA27

This indicator is reported/used for: DERM, DIP, NPR(W6), BoM(7f),

If used in NPR reporting, is this an auditable indicator? yes, unless only reporting WA7, and WA27

Reporting frequency: annual

Sampling/collection frequency: weekly (BoM), annual (NPR, QG)

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: WA7

Title: The total volume of water taken

SWIM category: Sources of Water

Definition:

This is the sum of the volumes reported above as supplied from dams, river extraction, groundwater, desalination, recycling and bulk supplier.

Note: Please report zero if no water is taken from this source

This indicator is derived from others as follows:

Vol. total sourced water = (Vol. water from surface water [WA1]) + (vol. water from groundwater [WA2]) + (vol. water desalination [WA3]) + (vol. water from recycling [WA4]) + (vol. water from bulk supplier [WA5]) + (vol. water purchased [WA6])

Reference: NPRF Handbook 08-09

Units: ML

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(W7), BoM(7g), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? only if not auditing/reporting WA1-6, otherwise, derived from WA1-6

Reporting frequency: annual

Sampling/collection frequency: weekly (BoM), annual (NPR, QG)

Spatial resolution of data: water schemes, nonpotable water schemes

3.3 Water uses

SWIM code: WA32

Title: The total volume of metered and estimated non-metered POTABLE residential water supplied

SWIM category: Uses of Water Supplied

Definition:

Total metered and estimated non-metered potable water supplied to residential properties for the reporting period. If some volumes are estimated, this should be noted on the data. If only consumed water volumes are provided (no estimates of non-revenue uses such as losses and leakages) please note this in the comments field

Note: Please report zero if no water is supplied to this category. Report NA if the amount supplied is not known.

Reference: BoM

Units: ML

Comparison to SWIM definition 07-08: new

This indicator is used to derive the following indicators: WA8, WA38

This indicator is reported/used for: DERM, BoM(7h), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? yes or WA38

Reporting frequency: annual

Sampling/collection frequency: weekly (BoM), annual (NPR, QG)

Spatial resolution of data: water schemes

SWIM code: WA33

Title: The total volume of NON- POTABLE residential water supplied

SWIM category: Uses of Water Supplied

Definition:

Total metered and estimated non-metered non-potable water supplied to residential properties for the reporting period. (If some volumes are estimated, this should be noted on the data). If only consumed water volumes are provided (no estimates of non-revenue uses such as losses and leakages) please note this in the comments field

Note: Please report zero if no water is supplied to this category. Report NA if the amount supplied is not known.

Reference: BoM

Units: ML

Comparison to SWIM definition 07-08: new

This indicator is used to derive the following indicators: WA8, WA39

This indicator is reported/used for: DERM, BoM(7h), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? yes or WA39

Reporting frequency: annual

Sampling/collection frequency: weekly or billing cycle (BoM), annual (NPR, QG)

Spatial resolution of data: sewerage schemes, nonpotable water schemes

SWIM code: WA8

Title: The total volume of metered and estimated non-metered POTABLE & NON-POTABLE residential water supplied (only report this if potable and non-potable cannot be reported separately)

SWIM category: Uses of Water Supplied

Definition:

Total metered and estimated non-metered, potable and non-potable water supplied to residential properties for the reporting period. (If some volumes are estimated, this should be noted on the data). If only consumed water volumes are provided (no estimates of non-revenue uses such as losses and leakages) please note this in the comments field

Note: Please report zero if no water is supplied to this category. Report NA if the amount supplied is not known.

Reference: NPRF handbook 08-09

Units: ML

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: WA11, WA12

This indicator is reported/used for: DERM, DIP, NPR(W8), BoM(7h), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? yes, unless auditing WA32 and WA33

Reporting frequency: annual

Sampling/collection frequency: weekly or billing cycle (BoM), annual (NPR, QG)

Spatial resolution of data: WSP-wide

SWIM code: WA34

Title: The total volume of metered and estimated non-metered POTABLE commercial, municipal and industrial water supplied

SWIM category: Uses of Water Supplied

Definition:

Total metered and estimated non-metered, potable water supplied to commercial, municipal and industrial properties for the reporting period (if some volumes are estimated, this should be noted on the data). If only consumed water volumes are provided (no estimates of non-revenue uses such as losses and leakages) please note this in the comments field

Note: Please report zero if no water is supplied to this category. Report NA if the amount supplied is not known.

Reference: BoM

Units: ML

Comparison to SWIM definition 07-08: new

This indicator is used to derive the following indicators: WA9, WA38

This indicator is reported/used for: DERM, BoM(7i), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? yes if not auditing/reporting WA11 or WA38

Reporting frequency: annual

Sampling/collection frequency: weekly or billing cycle (BoM), annual (NPR, QG)

Spatial resolution of data: water schemes

SWIM code: WA35

Title: The total volume of metered and estimated non-metered NON- POTABLE commercial, municipal and industrial water supplied

SWIM category: Uses of Water Supplied

Definition:

Total metered and estimated non-metered, non-potable water supplied to commercial, municipal and industrial properties for the reporting period (if some volumes are estimated, this should be noted on the data). If only consumed water volumes are provided (no estimates of non-revenue uses such as losses and leakages) please note this in the comments field

Note: Please report zero if no water is supplied to this category. Report NA if the amount supplied is not known.

Reference: BoM

Units: ML

Comparison to SWIM definition 07-08: new

This indicator is used to derive the following indicators: WA9, WA39

This indicator is reported/used for: DERM, BoM(7i), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? yes if not auditing/reporting WA11 or WA39

Reporting frequency: annual

Sampling/collection frequency: weekly or billing cycle (BoM), annual (NPR, QG)

Spatial resolution of data: sewerage schemes, nonpotable water schemes

SWIM code: WA9

Title: The total volume of metered and estimated non-metered POTABLE & NON-POTABLE commercial, municipal and industrial water supplied (only report this if potable and non-potable cannot be reported separately)

SWIM category: Uses of Water Supplied

Definition:

Total metered and estimated non-metered, potable and non-potable water supplied to commercial, municipal and industrial properties for the reporting period (if some volumes are estimated, this should be noted on the data). If only consumed water volumes are provided (no estimates of non-revenue uses such as losses and leakages) please note this in the comments field

Note: Please report zero if no water is supplied to this category. Report NA if the amount supplied is not known.

Reference: NPRF handbook 08-09

Units: ML

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: WA11

This indicator is reported/used for: DERM, DIP, NPR(W9), BoM(7i), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? yes if not auditing/reporting WA11 OR auditing & reporting WA34 and A35

Reporting frequency: annual

Sampling/collection frequency: weekly or billing cycle (BoM), annual (NPR, QG)

Spatial resolution of data: WSP-wide

SWIM code: WA36

Title: The total volume of metered and estimated non-metered POTABLE water supplied, other than residential , commercial, municipal and industrial water

SWIM category: Uses of Water Supplied

Definition:

Total metered and estimated non-metered potable water supplied to other users. This would include, but may not be limited to, water supplied for irrigation, an estimate of water used for fire fighting, mains flushing, losses due to customer meter errors, leakage or contractors and any other consumption due to operations.

Note: Please report zero if no water is supplied to this category. Report NA if the amount supplied is not known.

Reference: BoM

Units: ML

Comparison to SWIM definition 07-08: new

This indicator is used to derive the following indicators: WA10, WA38

This indicator is reported/used for: DERM, BoM(7j), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? yes if not auditing/reporting WA11 or WA38

Reporting frequency: annual

Sampling/collection frequency: weekly or billing cycle (BoM), annual (NPR, QG)

Spatial resolution of data: water schemes

SWIM code: WA37

Title: The total volume of metered and estimated non-metered NON- POTABLE water supplied, other than residential , commercial, municipal and industrial water

SWIM category: Uses of Water Supplied

Definition:

Total metered and estimated non-metered non-potable water supplied to other users. This would include, but may not be limited to, water supplied for irrigation, an estimate of water used for fire fighting, mains flushing, losses due to customer meter errors, leakage or contractors and any other consumption due to operations.

Note: Please report zero if no water is supplied to this category. Report NA if the amount supplied is not known.

Reference: BoM

Units: ML

Comparison to SWIM definition 07-08: new

This indicator is used to derive the following indicators: WA10, WA39

This indicator is reported/used for: DERM, BoM(7j), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? yes if not auditing/reporting WA11or WA39

Reporting frequency: annual

Sampling/collection frequency: weekly or billing cycle (BoM), annual (NPR, QG)

Spatial resolution of data: sewerage schemes, nonpotable water schemes

SWIM code: WA10

Title: The total volume of metered and estimated non-metered POTABLE & NON-POTABLE water supplied, other than residential , commercial, municipal and industrial water (only report this if potable and non-potable cannot be reported separately)

SWIM category: Uses of Water Supplied

Definition:

Total metered and estimated non-metered potable and non-potable water supplied to other users. This would include, but may not be limited to, water supplied for irrigation, an estimate of water used for fire fighting, mains flushing, losses due to customer meter errors, leakage or contractors and any other consumption due to operations.

Note: Please report zero if no water is supplied to this category. Report NA if the amount supplied is not known.

Reference: NPRF handbook 08-09

Units: ML

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: WA11

This indicator is reported/used for: DERM, DIP, NPR(W10), BoM(7j), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? yes if not auditing/reporting WA11 or auditing & reporting WA36 and WA37

Reporting frequency: annual

Sampling/collection frequency: weekly or billing cycle (BoM), annual (NPR, QG)

Spatial resolution of data: WSP-wide

SWIM code: WA38

Title: The total volume of metered and estimated non-metered POTABLE urban water supplied

SWIM category: Uses of Water Supplied

Definition:

The total metered volume of water (potable) supplied to customers over the reporting period plus estimated non-metered water supplied. This comprises the sum of residential water supplied, commercial, municipal and industrial water supplied and other water supplied (includes estimated non-metered water supplied).

Note: Total urban water supplied does not include bulk water (as in 2005–06 definitions).

Note: Environmental flows are not included in the total urban water supplied

Note: Please report zero if no water is supplied to this category. Report NA if the amount supplied is not known.

This indicator is derived from others as follows:

Total urban water supplied (potable) = (Potable Vol water supplied - Residential [WA32]) + (Potable Vol water supplied - Commercial, Municipal [WA34]) + (Potable Vol water supplied - other [WA36])

Reference: BoM

Units: ML

Comparison to SWIM definition 07-08: new

This indicator is used to derive the following indicators: WA30

This indicator is reported/used for: DERM, BoM(7k), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? yes if not reporting and auditing WA8-10 OR reporting & auditing WA32, WA34 and WA36

Reporting frequency: annual

Sampling/collection frequency: weekly or billing cycle (BoM), annual (NPR, QG)

Spatial resolution of data: water schemes

SWIM code: WA39

Title: The total volume of metered and estimated non-metered NON- POTABLE urban water supplied

SWIM category: Uses of Water Supplied

Definition:

The total metered volume of water (non-potable) supplied to customers over the reporting period plus estimated non-metered water supplied. This comprises the sum of residential water supplied, commercial, municipal and industrial water supplied and other water supplied (includes estimated non-metered water supplied).

Note: Total urban water supplied does not include bulk water (as in 2005–06 definitions).

Note: Environmental flows are not included in the total urban water supplied

Note: Please report zero if no water is supplied to this category. Report NA if the amount supplied is not known.

This indicator is derived from others as follows:

Total urban water supplied (potable) = (Nonpotable Vol water supplied - Residential [WA33]) + (Nonpotable Vol water supplied - Commercial, Municipal [WA35]) + (Nonpotable Vol water supplied - other [WA37])

Reference: BoM

Units: ML

Comparison to SWIM definition 07-08: new

This indicator is used to derive the following indicators: WA11

This indicator is reported/used for: DERM, BoM(7k), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? yes if not reporting and auditing WA8, WA9, WA10, OR reporting & auditing WA33, WA35 and WA37

Reporting frequency: annual

Sampling/collection frequency: weekly or billing cycle (BoM), annual (NPR, QG)

Spatial resolution of data: sewerage schemes, nonpotable water schemes

SWIM code: WA11

Title: The total volume of metered and estimated non-metered POTABLE & NON-POTABLE urban water supplied (only report this if potable and non-potable cannot be reported separately)

SWIM category: Uses of Water Supplied

Definition:

The total metered volume of water (potable and non-potable, including recycled) supplied to customers over the reporting period plus estimated non-metered water supplied. This comprises the sum of residential water supplied, commercial, municipal and industrial water supplied and other water supplied (includes estimated non-metered water supplied).

Note: Total urban water supplied does not include bulk water (as in 2005–06 definitions).

Note: Environmental flows are not included in the total urban water supplied

Note: Please report zero if no water is supplied to this category. Report NA if the amount supplied is not known.

This indicator is derived from others as follows:

Total urban water supplied (potable and nonpotable) = (Vol water supplied - Residential [WA8]) + Vol water supplied - Commercial, Municipal [WA9]) + (Vol water supplied - other [WA10])

Reference: NPRF handbook 08-09

Units: ML

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators:

This indicator is reported/used for: DERM, DIP, NPR(W11), BoM(7k), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? yes if not reporting and auditing WA8-10 (otherwise derived from WA8,WA9,WA10)

Reporting frequency: annual

Sampling/collection frequency: weekly or billing cycle (BoM), annual (NPR, QG)

Spatial resolution of data: WSP-wide

SWIM code: WA12

Title: Average annual residential water supplied per property

SWIM category: Uses of Water Supplied

Definition:

This indicator is derived from others as follows:

Average annual residential water supplied= (Residential water supplied [WA8]) / (Residential water connected properties[CS2])

Note: Please report zero if no water is supplied to this category. Report NA if the amount supplied is not known.

Reference: NPRF handbook 08-09

Units: kL/connected property/year

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: PR27

This indicator is reported/used for: DERM, DIP, NPR(W12), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? derived from WA8 and CS2

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: WA30

Title: Average annual total potable water supplied per connection

SWIM category: Uses of Water Supplied

Definition:

This indicator is derived from others as follows:

Average annual total potable water supplied per connection = (vol. total potable urban water supplied [WA38]) / (Number total connected properties: water supply [CS4])

Note: Please report zero if no water is supplied to this category. Report NA if the amount supplied is not known.

Reference: qldwater Directorate

Units: kL/water connection/year

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes

SWIM code: WA13

Title: Volume of water supplied - Environmental (ML)

SWIM category: Uses of Water Supplied

Definition:

Wholesale flow allocations to the environment, generally upstream of the master meter, for the reporting period as specified in the environmental flow management regime generally required by the relevant natural resource management agency. Accidental or unintentional releases should not be included unless they can be incorporated into the environmental flow management regime.

Note: Please report zero if no water is supplied to this category. Report NA if the amount supplied is not known.

Reference: NPRF handbook 08-09

Units: ML

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, NPR(W13),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: WA40

Title: The total volume of POTABLE bulk water exports (with start and finish times, and dates of the observations)

SWIM category: Uses of Water Supplied

Definition:

The total volume of water (potable) sold to another utility or another entity outside this utility's geographic area of responsibility. The volume of water will include water originated from another source.

Note: Please report zero if no water is supplied to this category. Report NA if the amount supplied is not known.

Reference: BoM

Units: ML

Comparison to SWIM definition 07-08: new

This indicator is used to derive the following indicators: WA14

This indicator is reported/used for: DERM, BoM(7l),

If used in NPR reporting, is this an auditable indicator? yes unless only reporting and auditing WA14

Reporting frequency: annual

Sampling/collection frequency: weekly (BoM), annual (NPR, QG)

Spatial resolution of data: WSP-wide

SWIM code: WA41

Title: The total volume of NON- POTABLE bulk water exports (with start and finish times, and dates of the observations)

SWIM category: Uses of Water Supplied

Definition:

The total volume of water (non-potable) sold to another utility or another entity outside this utility's geographic area of responsibility. The volume of water will include water originated from another source.

Note: Please report zero if no water is supplied to this category. Report NA if the amount supplied is not known.

Reference: BoM

Units: ML

Comparison to SWIM definition 07-08: new

This indicator is used to derive the following indicators: WA14

This indicator is reported/used for: DERM, BoM(7l),

If used in NPR reporting, is this an auditable indicator? yes unless only reporting auditing WA14

Reporting frequency: annual

Sampling/collection frequency: weekly (BoM), annual (NPR, QG)

Spatial resolution of data: WSP-wide

SWIM code: WA14

Title: The total volume of POTABLE & NON-POTABLE bulk water exports (with start and finish times, and dates of the observations) (only report this if potable and non-potable cannot be reported separately)

SWIM category: Uses of Water Supplied

Definition:

The total volume of water (potable and non-potable) sold to another utility or another entity outside this utility's geographic area of responsibility. The volume of water will include water originated from another source.

Note: Please report zero if no water is supplied to this category. Report NA if the amount supplied is not known.

Reference: NPRF Handbook 08-09

Units: ML

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(W14), BoM(7l),

If used in NPR reporting, is this an auditable indicator? yes if not reporting and auditing WA40 & 41

Reporting frequency: annual

Sampling/collection frequency: weekly (BoM), annual (NPR, QG)

Spatial resolution of data: WSP-wide

SWIM code: WA42

Title: The total volume of POTABLE bulk recycled water exports (with start and finish times, and dates of the observations)

SWIM category: Uses of Water Supplied

Definition:

The total volume of potable recycled water sold to another utility or another entity outside this utility's geographic area of responsibility.

Note: Please report zero if no water is supplied to this category. Report NA if the amount supplied is not known.

Reference: BoM

Units: ML

Comparison to SWIM definition 07-08: new

This indicator is used to derive the following indicators: WA15

This indicator is reported/used for: DERM, BoM(7m),

If used in NPR reporting, is this an auditable indicator? yes unless only reporting and auditing WA15

Reporting frequency: annual

Sampling/collection frequency: weekly (BoM), annual (NPR, QG)

Spatial resolution of data: WSP-wide

SWIM code: WA43

Title: The total volume of NON- POTABLE bulk recycled water exports (with start and finish times, and dates of the observations)

SWIM category: Uses of Water Supplied

Definition:

The total volume of nonpotable recycled water sold to another utility or another entity outside this utility's geographic area of responsibility.

Note: Please report zero if no water is supplied to this category. Report NA if the amount supplied is not known.

Reference: BoM

Units: ML

Comparison to SWIM definition 07-08: new

This indicator is used to derive the following indicators: WA15

This indicator is reported/used for: DERM, BoM(7m),

If used in NPR reporting, is this an auditable indicator? yes unless only reporting and auditing WA15

Reporting frequency: annual

Sampling/collection frequency: weekly (BoM), annual (NPR, QG)

Spatial resolution of data: WSP-wide

SWIM code: WA15

Title: The total volume of POTABLE & NON-POTABLE bulk recycled water exports (with start and finish times, and dates of the observations) (only report this if potable and non-potable cannot be reported separately)

SWIM category: Uses of Water Supplied

Definition:

The total volume of potable and non-potable recycled water sold to another utility or another entity outside this utility's geographic area of responsibility.

Note: Please report zero if no water is supplied to this category. Report NA if the amount supplied is not known.

Reference: NPRF Handbook 08-09

Units: ML

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: WA27

This indicator is reported/used for: DERM, DIP, NPR(W15), BoM(7m),

If used in NPR reporting, is this an auditable indicator? yes if not auditing & reporting WA42 and WA43, OR unless only reporting & auditing WA27

Reporting frequency: annual

Sampling/collection frequency: weekly (BoM), annual (NPR, QG)

Spatial resolution of data: WSP-wide

3.4 Waste water & recycled water

SWIM code: WA16

Title: Volume Residential and non-trade waste sewage collected

SWIM category: Waste water

Definition:

Sewage received from residential, non-residential and non-trade waste sources. This also includes any volumes collected in the sewage system due to stormwater, illegal connection inflow and infiltration to the sewerage system. Residential (domestic) sewage is the water borne waste derived from human origin comprising of faecal matter, urine and liquid household waste from water closet pans, sinks, baths, basins and similar fixtures designed for use in private dwellings.

Reference: NPRF Handbook 08-09

Units: ML

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: WA18

This indicator is reported/used for: DERM, DIP, NPR(W16),

If used in NPR reporting, is this an auditable indicator? yes, unless only reporting total (WA18)

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: WA17

Title: Volume Trade waste sewage collected

SWIM category: Waste water

Definition:

Total volume of estimated and metered trade waste collected and treated by the water utility, or on behalf of the water utility. This includes any volumes of stormwater collected in the trade waste system. Trade waste (industrial waste) is the liquid waste generated from any industry, business, trade, or manufacturing process. It does not include domestic sewage.

Reference: NPRF Handbook 08-09

Units: ML

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: WA18

This indicator is reported/used for: DERM, DIP, NPR(W17),

If used in NPR reporting, is this an auditable indicator? yes, unless only reporting total (WA18)

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: WA18

Title: Total volume sewage collected

SWIM category: Waste water

Definition:

Total volume of sewage collected by the utility, measured as treatment plant inflow, plus sewage treated by another business on behalf of the water utility e.g. wholesaler. Where only treatment plant outflow is measured, record this value and comment appropriately. This measure should equal the sum of volumes reported for residential, non-residential and non-trade waste collected and trade waste collected.

Note: Residential and non-residential sewage and trade waste are defined as per either The National Water Management Strategy Guidelines for Sewerage Systems 1994 or state-based legislation.

This indicator is derived from others as follows:

Total Vol sewage collected = (Volume Residential and non-trade waste sewage collected [WA17]) + (Volume Trade sewage collected [WA18])

Reference: NPRF Handbook 08-09

Units: ML

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: WA19, CS35

This indicator is reported/used for: DERM, DIP, NPR(W18), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? yes if not reporting & auditing WA16 and WA17

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: WA19

Title: Average volume sewage collected per property

SWIM category: Waste water

Definition:

This indicator is derived from others as follows:

Sewage collected per property = (Total sewage collected [WA18]) / (Total sewerage connected properties [CS8])

Reference: NPRF Handbook 08-09

Units: kL/sewer connection/year

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(W19), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? yes if not reporting and auditing WA18 and CS8

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: WA20

Title: Volume of recycled water supplied: Residential

SWIM category: Uses of Recycled Water

Definition:

Total metered and estimated non-metered consumption of recycled water by residential properties for the reporting period. (If some volumes are estimated, this should be noted on the data). This would generally occur via a third pipe system.

In SWIM, this value may be the same as that reported for WA33 (voume of nonpotable water supplied to residential users). These values will be the same if (i) the recycled water supplied is all nonpotable and (ii) there are no other supplies of nonpotable water (such as raw water)

Note: Please report zero if no water is supplied to this category. Report NA if the amount supplied is not known.

Reference: NPRF Handbook 08-09, qldwater

Units: ML

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: WA26

This indicator is reported/used for: DERM, DIP, NPR(W20),

If used in NPR reporting, is this an auditable indicator? yes unless only reporting total (WA26)

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes, nonpotable water schemes

SWIM code: WA21

Title: Volume of recycled water supplied: Industrial, commercial, municipal

SWIM category: Uses of Recycled Water

Definition:

Total metered and estimated non-metered consumption of recycled water by commercial, municipal and industrial properties for the reporting period. (If some volumes are estimated, this should be noted on the data) i.e. recycled water supplied to golf courses, heavy industry and commercial areas.

In SWIM, this value may be the same as that reported for WA35 (voume of nonpotable water supplied to commercial, industrial and municipal users). These values will be the same if (i) the recycled water supplied is all nonpotable and (ii) there are no other supplies of nonpotable water (such as raw water).

Note: Please report zero if no water is supplied to this category. Report NA if the amount supplied is not known.

Reference: NPRF Handbook 08-09, qldwater

Units: ML

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: WA26

This indicator is reported/used for: DERM, DIP, NPR(W21),

If used in NPR reporting, is this an auditable indicator? yes unless only reporting total (WA26)

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes, nonpotable water schemes

SWIM code: WA22

Title: Volume of recycled water supplied: Agricultural

SWIM category: Uses of Recycled Water

Definition:

Total metered and estimated non-metered consumption of recycled water supplied for agricultural purposes (If some volumes are estimated, this should be noted on the data) i.e. irrigation of crops recycled water supplied to forestry, agricultural products including livestock.

Note: Please report zero if no water is supplied to this category. Report NA if the amount supplied is not known.

Reference: NPRF Handbook 08-09

Units: ML

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: WA26

This indicator is reported/used for: DERM, DIP, NPR(W22),

If used in NPR reporting, is this an auditable indicator? yes unless only reporting total (WA26)

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes, nonpotable water schemes

SWIM code: WA24

Title: Volume of recycled water supplied: On-site

SWIM category: Uses of Recycled Water

Definition:

Recycled water used on-site external to the treatment process. (If some volumes are estimated, this should be noted on the data). Total volumes of recycled water supplied within the period i.e. volumes must capture total water supplied in a continuous process irrespective of whether it is re-used within a cycle.

Note: Please report zero if no water is supplied to this category. Report NA if the amount supplied is not known.

Reference: NPRF Handbook 08-09

Units: ML

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: WA26

This indicator is reported/used for: DERM, DIP, NPR(W24),

If used in NPR reporting, is this an auditable indicator? yes unless only reporting total (WA26)

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes, nonpotable water schemes

SWIM code: WA23

Title: Volume of recycled water supplied: Environmental

SWIM category: Uses of Recycled Water

Definition:

Recycled water discharged to a waterway for environmental purposes as prescribed by the environmental regulator. There must be a quality characteristic that is a net benefit to the environment as determined by the relevant regulator. (If some volumes are estimated, this should be noted on the data). i.e. water discharged to rivers, the sea, natural wetlands. This may exclude non harvestable forests and bushland if the regulator determines there is 'disposal' rather than 'beneficial use'.

Note: Please report zero if no water is supplied to this category. Report NA if the amount supplied is not known.

Reference: NPRF Handbook 08-09

Units: ML

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: WA26

This indicator is reported/used for: DERM, DIP, NPR(W23),

If used in NPR reporting, is this an auditable indicator? yes unless only reporting total (WA26)

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes, nonpotable water schemes

SWIM code: WA25

Title: Volume of recycled water supplied: Other

SWIM category: Uses of Recycled Water

Definition:

Total estimated non-metered recycled water supplied to other users. This would include, but may not be limited to, an estimate of water used for fire fighting, mains flushing, losses due to customer meter errors, leakage or contractors and any other consumption due to operations.

Note: the other uses must be within WSP's geographic area of responsibility, i.e. not exports

Note: Please report zero if no water is supplied to this category. Report NA if the amount supplied is not known.

Reference: NPRF Handbook 08-09

Units: ML

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: WA26

This indicator is reported/used for: DERM, DIP, NPR(W25),

If used in NPR reporting, is this an auditable indicator? yes unless only reporting total (WA26)

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes, nonpotable water schemes

SWIM code: WA26

Title: Total volume recycled water supplied (within the WSPs geographic area of responsibility)

SWIM category: Waste water

Definition:

This indicator is derived from others as follows:

Total recycled water supplied [WA26] = Vol. recycled water supplied: Residential [WA20] + Vol. recycled water supplied: Commercial, municipal and industrial [WA21] + Vol. recycled water supplied: agriculture [WA22] + Vol. recycled water supplied: on-site use [WA23] + Vol. recycled water supplied: environmental purposes [WA24] + Vol. recycled water supplied: other users [WA25]

Note: Please report zero if no water is supplied to this category. Report NA if the amount supplied is not known.

In SWIM, this value may be the same as that reported for WA39 (total volume of nonpotable water supplied). These values will be the same if (i) the recycled water supplied is all nonpotable and (ii) there are no other supplies of nonpotable water (such as raw water)

Reference: NPRF Handbook 08-09, qldwater

Units: ML

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: WA27

This indicator is reported/used for: DERM, DIP, NPR(W26), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? yes if not reporting and auditing WA20-25, otherwise derived from WA20-25

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes, nonpotable water schemes

SWIM code: WA31

Title: The total volume of sewage discharged from sewage treatment plants

SWIM category: Waste water

Definition:

This indicator is used to determine indicator WA27: the percent of effluent that is recycled.

Where measurement of the volume of effluent leaving the treatment plant is not made but the volume of influent is measured the volume of sewage effluent is calculated as follows: Volume of sewage collected [WA18] – Net Evaporation.

Net evaporation can be calculated either by using outlet meters (where present) or through meteorological data. Meteorological data should be taken from the Bureau of Meteorology weather station closest to the location of the pond or alternatively by weather stations on site operated by the water utility. Where a utility's weather stations are used, these need to be subjected to appropriate quality control processes.

Reference: qldwater Directorate

Units: ML

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: WA27

This indicator is reported/used for: DERM, SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? yes unless only reporting WA27

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: WA44

Title: The total volume of sewage discharges from a sewage discharge point into a watercourse

SWIM category: Waste water

Definition:

The total weekly volume of sewage discharges from a sewage discharge point into a watercourse, expressed in megalitres per week, the start and finish times of the observations, and dates of the observations.

Sewage is defined as waste from residential and non-residential properties collected and/or treated via sewerage infrastructure. It includes any volumes collected in the sewerage system due to stormwater, illegal connection inflow and infiltration to the sewerage system. It covers both untreated and treated sewage but does not include sewage treatment plant effluent that is subsequently recycled.

When reporting sewage discharge into a watercourse, please report all sewage discharge including:

(1) surface water or ocean within or adjacent to the organisation's geographic area of responsibility

(2) sewerage infrastructure operated by another organisation.

This data includes all discharges of sewage treatment plant effluent into watercourses and marine water bodies and sewage exported to another sewerage infrastructure operator.

Note: If a WSP has more than one discharge point from any STP, all discharge points should be reported (qldwater)

Reference: BoM

Units: ML

Comparison to SWIM definition 07-08: new

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: , BoM(7n),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: weekly

Spatial resolution of data: sewerage discharge points

SWIM code: WA27

Title: Recycled water (percent of effluent recycled)

SWIM category: Waste water

Definition:

The percentage of all treated effluent that is used by either the water utility itself, a business supplied by the water utility, or supplied through a third pipe system for urban re-use. The total volume of treated effluent should exclude the volume of bulk recycled water purchased from another utility or business and treatment plant evaporation. The parameters are the total sewage collected and the volume of effluent recycled.

Recycled water can be provided for onsite reuse, agriculture, irrigation, industry, potable or other use external to the treatment process.

Note:

1. Recycled water supplied to clubs, sporting fields, or other businesses is included.

2. Environmental flows are included if they are approved by the EPA and substitute raw water abstraction or are recognised as an environmental flow by regulator/authority.

3. Sewer mining extracted from the utility's mains is an accepted form of recycling.

Note: this indicator represents the percentage of the WSP's effluent that is recycled by the WSP. This calculation must take into account any recycled water that ispurchased from outside the WSP-area (thismust be excluded from the calculation) and any recycled water that is produced by the WSP but exported to outside the WSP-area. (qldwater)

This indicator is derived from others as follows:

Recycled water (% effluent recycled) = ((volume of recycled water used [WA26]+ volume of bulk recycled water exports [WA15] - vol. bulk recycled water purchased [WA6]) / volume of sewage effluent [WA31]) x 100%

Reference: NPRF Handbook 08-09

Units: %

Comparison to SWIM definition 07-08: changed: vol of recycled water that is imported and vol that is exported are included in the calculation this year. Previous years' calculations were ambiguous on the inclusion of these factors.

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(W27), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? derived from WA26, WA15, WA6, WA31

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

3.5 Assets – water

SWIM code: AS20

Title: Number of dams

SWIM category: Water Treatment and Supply Assets

Definition:

Number of dams used for seasonal water storage, as distinct from daily reticulation supply. Includes on and off-stream storages.

Reference: DLG SWIM 2007

Units: {Count}

Note: Please report zero if there are none of these assets. Only report NA if the number of these assets is unknown.

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, SAMP: Section 2: Overview of services,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: AS21

Title: Number of bores

SWIM category: Water Treatment and Supply Assets

Definition:

Bores are defined as deep holes of small diameter connecting to an underground aquifer, through which water rises under hydrostatic pressure or by pumping.

Reference: DLG SWIM 2007

Units: {Count}

Note: Please report zero if there are none of these assets. Only report NA if the number of these assets is unknown.

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, SAMP: Section 2: Overview of services,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: AS23

Title: Number of weirs

SWIM category: Water Treatment and Supply Assets

Definition:

Weirs are defined here as dams with little or no storage capacity, in a river or stream used to stop and raise the water level, so that some of the flow can be diverted into a pipe or channel.

Reference: DLG SWIM 2007

Units: {Count}

Note: Please report zero if there are none of these assets. Only report NA if the number of these assets is unknown.

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, SAMP: Section 2: Overview of services,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: AS19

Title: Number of water distribution storage facilities.

SWIM category: Water Treatment and Supply Assets

Definition:

The total number of distribution storage facilities used in the delivery of potable water to customers. This includes distribution system reservoirs, tanks etc, but does not include bulk raw water storage facilities. It does not include the clear (treated) water tanks at water treatment complexes.

Reference: DLG SWIM 2007

Units: {Count}

Note: Please report zero if there are none of these assets. Only report NA if the number of these assets is unknown.

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, SAMP: Section 2: Overview of services,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: AS18

Title: Number of water pumping stations

SWIM category: Water Treatment and Supply Assets

Definition:

The total number of water pumping stations used to deliver water to customers. This includes any pumping station used to deliver potable water to the metropolitan area of supply after the final stage of the water treatment process. (Note: many treatment plant complexes will have a pump station on site to deliver treated water into the water distribution system. Such pump stations are to be included.)

Reference: DLG SWIM 2007

Units: {Count}

Note: Please report zero if there are none of these assets. Only report NA if the number of these assets is unknown.

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, SAMP: Section 2: Overview of services,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: AS2

Title: Length of water mains (km)

SWIM category: Water Treatment and Supply Assets

Definition:

The total length of water mains including; all transfer, distribution, reticulation mains and recycled water distribution and reticulation mains delivering water for urban areas. The length of water mains excludes:

• Mains associated with property water service (mains to meter) connections.

• Mains delivering recycled water for non-urban uses, e.g. agriculture re-use.

• Disused pipe lengths should not be counted, even if they are maintained by the water utility for possible future use.

• Privately owned mains

• Mains associated with source works e.g. borefield mains

• Mains and channels associated with sources which transfer water to treatment

facilities or from scheme to scheme

• Mains associated with facilities e.g. mains within pump stations, storage facilities or treatment plants

Note:

1. Utilities that provide water services to a number of urban centre's either within a region, local government, or state-wide and are reporting the performance of these urban centre's as part of the national performance framework either separately or aggregated must also report length of water mains used in providing the services to those urban centres. If the assets are used for multiple urban centres which are reported separately then they must be apportioned in a manner which is consistent with their use. Apportionment in line with the volume of water supplied to the urban centre reported is an acceptable way to apportion the length of these mains.

2. The definition for length of water mains refers to 'delivery of potable water and nonpotable water to customers'.

3. Ferrule is part of the service connection.

Reference: NPRF Handbook 08-09

Units: km

Note: Please report zero if there are none of these assets. Only report NA if the number of these assets is unknown.

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: AS3, AS8, AS11

This indicator is reported/used for: DERM, DIP, NPR(A2), SAMP: Section 2: Overview of services,

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: AS3

Title: Properties served per km of water main

SWIM category: Water Treatment and Supply Assets

Definition:

This indicator is derived from others as follows:

Properties served (per km of water main) = (Total water connected properties [CS4]) / Length of water mains [AS2]

Reference: NPRF Handbook 08-09

Units: No. connections

Note: Please report zero if there are none of these assets. Only report NA if the number of these assets is unknown.

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(A3), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? derived from AS2 and CS4

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: AS16

Title: Number of water treatment plants providing disinfection only

SWIM category: Water Treatment and Supply Assets

Definition:

A water treatment plant is an individual location receiving raw or partially treated water for treatment and ultimate delivery to customers. There may be more than one water treatment plant at an individual facility. Secondary or booster disinfection plants are not included, even where they have pH correction. Water treatment plants that provide fluoridation only should be classified as disinfection only.

Note: Typical disinfection only processes include chlorination, chloramination, ozonation and/or ultraviolet treatment

Reference: NPRF Handbook 08-09

Units: {Count}

Note: Please report zero if there are none of these assets. Only report NA if the number of these assets is unknown.

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, SAMP: Section 2: Overview of services,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: AS17

Title: Number of water treatment plants providing further treatment

SWIM category: Water Treatment and Supply Assets

Definition:

Typical further treatment processes include pH correction, softening and taste or odour reduction

Reference: NPRF Handbook 08-09

Units: {Count}

Note: Please report zero if there are none of these assets. Only report NA if the number of these assets is unknown.

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, SAMP: Section 2: Overview of services,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: AS1

Title: Number of water treatment plants providing full treatment

SWIM category: Water Treatment and Supply Assets

Definition:

Generally, the water treatment plant is a substantial structure involving multiple treatment methods to achieve high quality water. The treatment plant would generally include processes that remove colour and/or turbidity as well as providing filtration and disinfection. In addition to the above, it may include processes for taste and/or odour reduction, softening, pH correction and the targeted removal of elements and compounds such as iron, manganese, nitrates and pesticides.

Notes:

1. Secondary disinfection plants should not be counted, even when they have pH correction as well.

2. BOOT schemes should be included.

3. Typical full treatment processes include coagulation, flocculation, sedimentation, filtration, disinfection, membrane filtration and reverse osmosis.

Reference: NPRF Handbook 08-09

Units: {Count}

Note: Please report zero if there are none of these assets. Only report NA if the number of these

assets is unknown.

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(A1), SAMP: Section 2: Overview of services,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

3.6 Assets – sewerage

SWIM code: AS4

Title: Number of sewage treatment plants

SWIM category: Sewerage Assets

Definition:

The total number of sewage treatment plants providing sewage services to customers. This includes all primary, secondary and tertiary level treatment plants.

Note: BOOT schemes should be included.

Reference: NPRF Handbook 08-09

Units: {Count}

Note: Please report zero if there are none of these assets. Only report NA if the number of these assets is unknown.

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(A4), SAMP: Section 2: Overview of services,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: AS24

Title: Number of sewage pumping stations

SWIM category: Sewerage Assets

Definition:

The total number of sewerage pumping stations providing wastewater services to customers. This includes any pumping station transporting sewerage to the first stage of treatment regardless of whether the station is off or actually on the treatment plant site. Pumping stations/equipment thereafter should be excluded as they are considered a component of the treatment plant. Note: Include vacuum pumping stations. Do not include grinder pumping stations at individual properties.

Reference: DLG SWIM 2007

Units: {Count}

Note: Please report zero if there are none of these assets. Only report NA if the number of these assets is unknown.

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: AS5

Title: Length of sewerage mains and channels (km)

SWIM category: Sewerage Assets

Definition:

The total length of mains and channels, including all trunk, pressure and reticulation mains. It does not include lengths associated with property connection sewers or

conduits carrying treated effluent.

Notes:

- Combined sewerage and stormwater mains should be included.

- Conduits and pipelines, (e.g. feeding paddocks for grass and land filtration), downstream from the treatment plant should be excluded.

Reference: NPRF Handbook 08-09

Units: km

Note: Please report zero if there are none of these assets. Only report NA if the number of these assets is unknown.

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: AS6, AS12, AS35, AS37

This indicator is reported/used for: DERM, DIP, NPR(A5), SAMP: Section 2: Overview of services,

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: AS6

Title: properties served per km of sewer main

SWIM category: Sewerage Assets

Definition:

This indicator is derived from others as follows:

Properties served per km of sewer main = Total sewerage connected properties [CS8] / Length of sewer mains and channels[AS5]

Reference: NPRF Handbook 08-09

Units: No. Connections/km

Note: Please report zero if there are none of these assets. Only report NA if the number of these assets is unknown.

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(A6), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? derived from AS5 and CS8

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: AS25

Title: Number of marine environment outfalls

SWIM category: Sewerage Assets

Definition:

Outfalls should be categorised as marine environments, inland waterways or estuarine environments. In certain circumstances there may be multiple outfalls from a single treatment plant. If these outfalls generally discharge into the same receiving environment, and are relatively close together, they should be counted as a single outfall. If the receiving environments are distinct, they should be counted as multiple outfalls.

Reference: DLG SWIM 2007

Units: {Count}

Note: Please report zero if there are none of these assets. Only report NA if the number of these assets is unknown.

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: AS26

Title: Number of inland waterways outfalls

SWIM category: Sewerage Assets

Definition:

Outfalls should be categorised as marine environments, inland waterways or estuarine environments. In certain circumstances there may be multiple outfalls from a single treatment plant. If these outfalls generally discharge into the same receiving environment, and are relatively close together, they should be counted as a single outfall. If the receiving environments are distinct, they should be counted as multiple outfalls.

Reference: DLG SWIM 2007

Units: {Count}

Note: Please report zero if there are none of these assets. Only report NA if the number of these assets is unknown.

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: AS27

Title: Number of estuarine environment outfalls

SWIM category: Sewerage Assets

Definition:

Outfalls should be categorised as marine environments, inland waterways or estuarine environments. In certain circumstances there may be multiple outfalls from a single treatment plant. If these outfalls generally discharge into the same receiving environment, and are relatively close together, they should be counted as a single outfall. If the receiving environments are distinct, they should be counted as multiple outfalls.

Reference: DLG SWIM 2007

Units: {Count}

Note: Please report zero if there are none of these assets. Only report NA if the number of these assets is unknown.

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

3.7 Assets – recycled water

SWIM code: AS7

Title: Number of recycled water treatment plants

SWIM category: Recycled Water Assets

Definition:

Recycled water treatment plants undertake any processes required in addition to sewage treatment requirements to bring the sewage quality to a level appropriate for recycling to meet the customer needs. If the level required for recycling is equal or less stringent than that required for discharge, i.e. no additional treatment is required; this is not included as a recycled water treatment plant.

A recycled water treatment plant takes sewage exclusively for recycling. In the event the treatment plant has a dual purpose (used both as a sewage treatment plant and as a recycled water treatment plant) then predominant use (>50 per cent) should be used to classify the plant to avoid double counting. Predominant usage may change over time due to upgrades or be driven by demand.

There may be more than one additional process step at an individual facility; however this is treated as one recycling water treatment plant.

Reference: NPRF Handbook 08-09

Units: {Count}

Note: Please report zero if there are none of these assets. Only report NA if the number of these assets is unknown.

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(A7), SAMP: Section 2: Overview of services,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes, nonpotable water schemes

SWIM code: AS29

Title: Number of recycled water pumping stations

SWIM category: Recycled Water Assets

Definition:

The total number of recycled water pumping stations used to deliver recycled water to customers.

Reference: DLG SWIM 2007

Units: {Count}

Note: Please report zero if there are none of these assets. Only report NA if the number of these assets is unknown.

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes, nonpotable water schemes

SWIM code: AS30

Title: Length of recycled water mains (km)

SWIM category: Recycled Water Assets

Definition:

The total length of mains delivering recycled water to customers, including all transfer, distribution and reticulation mains. It should not include lengths not solely dedicated to the delivery of recycled water to customers. Note: Disused pipe lengths should not be counted, even if they are maintained by the water business for possible future use.

Reference: DLG SWIM 2007

Units: km

Note: Please report zero if there are none of these assets. Only report NA if the number of these assets is unknown.

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes, nonpotable water schemes

SWIM code: AS31

Title: Number of recycled water distribution storage facilities

SWIM category: Recycled Water Assets

Definition:

The total number of recycled water distribution storage facilities used in the delivery of recycled water to customers.

Reference: DLG SWIM 2007

Units: {Count}

Note: Please report zero if there are none of these assets. Only report NA if the number of these assets is unknown.

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes, nonpotable water schemes

3.8 Asset performance – water

SWIM code: AS14

Title: Number of water main breaks (total)

SWIM category: Asset Performance - Water

Definition:

The total number of main breaks, bursts and leaks in all diameter water distribution and reticulation mains for the reporting period. Breaks exclude those in the property service (i.e. mains to meter connection) and weeps or seepages associated with above ground mains that can be fixed without shutting down the main.

Note: The "property service" includes any water infrastructure between the water main and the internal plumbing of the property. It may be owned by the water utility, and is often referred to as the "mains to meter" service or connection. All water plumbing downstream of the meter is usually the property owner's asset.

Underground hydrants are not considered to be part of the water main and as such leaks in hydrants are excluded from this measure.

Reference: NPRF Handbook 08-09

Units: {Count}

Comparison to SWIM definition 07-08: changed: definition of a break has changed and data from previous years is not comparable

This indicator is used to derive the following indicators: AS8

This indicator is reported/used for: DERM, DIP, NPR(IA8), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: AS8

Title: Number of water main breaks (per 100 km water main)

SWIM category: Asset Performance - Water

Definition:

This indicator is derived from others as follows:

Number of water main breaks per 100 km water mains = Total number water main breaks [AS14] / Total length water mains [AS2] * 100

Reference: NPRF Handbook 08-09, qldwater

Units: No./100 km water main

Comparison to SWIM definition 07-08: changed: definition of a break has changed and data from previous years is not comparable

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(A8), SAMP: section 4: Asset Management: Water services, SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? derived from AS2 and AS14

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: AS9

Title: Infrastructure Leakage Index

SWIM category: Asset Performance - Water

Definition:

The Infrastructure Leakage Index (ILI) is an indicator of how effectively real losses in the distribution system are being managed at the current operating pressures. The Infrastructure Leakage Index (ILI) is the ratio of the Current Annual Real Losses (CARL, calculated from a Water Balance as shown in the NPR issues register) to the Unavoidable Annual Real Losses (UARL, calculated from an equation developed by the IWA Water Losses Task Force).

Reference: NPRF Handbook 08-09

Units: Index

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(A9), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: AS32

Title: Volumetric leakage level

SWIM category: Asset Performance - Water

Definition:

This is the total volume of water currently lost from the distribution system through leakage.

For piped systems, determine and document the volume of water leaking from the system, up to the point of customer connection. Water leakage includes:

• Leakage and bursts from transmission mains

• Leakage and bursts from the distribution system – from the service provider's mains, service connections, and fittings

• Leakage from reservoirs

• Overflows from reservoirs.

For a bulk water service comprising of an individual or several large diameter pipeline(s), determine and document the volume of water leaking from the system, up to the point of customer connection. Water leakage includes:

• Leakage and bursts from transmission mains

• Leakage and bursts from the distribution system – from the service provider's mains, service connections, and fittings

• Leakage from reservoirs or balancing storages

• Overflows from reservoirs or balancing storages.

Reference: SLMP Guidelines (Queensland Government, April 2007)

Units: ML/year

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: AS11

This indicator is reported/used for: DERM, SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: AS33

Title: Reduction in volumetric leakage level in financial year

SWIM category: Asset Performance - Water

Definition:

This is the change in total volume of leakage (indicator AS32) since the previous year.

If there has been a reduction in leakage since the previous tear, the value is positive. For example, if leakage was 20ML/year in the 2006-7 year, and 15ML/year in the 2007-8 year, the reduction value (AS33) would be 2 ML/year. If leakage has increase, the reduction value would be negative. For example, if leakage was 20ML/year in the 2006-7 year, and 55ML/year in the 2007-8 year, the reduction value (AS33) would be -5 ML/year.

Reference: SLMP Guidelines (Queensland Government, April 2007), with additions from qldwater Directorate.

Units: ML/year

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: AS10

Title: Real water losses

SWIM category: Asset Performance - Water

Definition:

Real losses represent a wasted resource, reduce the effective capacity of a water supply system, and may result in unnecessary operating costs. Real losses per service connection per day is an indicator of effective management that is influenced by pressure, condition or age of the infrastructure, or a combination of all of these factors.

Real losses are leakage and overflows from mains, service reservoirs and service connections prior to customer meters.

The number of service connections is not the same as the number of metered accounts or connected properties. The number of service connections can be taken as being the number of

metered accounts, minus the total of any sub-meters (after master meters

e.g. to shops and flats), plus the estimated number of unmetered service connections (e.g. fire service connections). It is not acceptable to use the total connected properties value (C4) for calculating Real Losses Performance Indicators.

Reference: NPRF handbook 08-09

Units: litres/service connection/day

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(A10), SAMP: section 4: Asset Management: Water services, SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: AS11

Title: Real water losses

SWIM category: Asset Performance - Water

Definition:

Real losses represent a wasted resource, reduce the effective capacity of a water supply system, and may result in unnecessary operating costs.

Real losses are leakage and overflows from mains, service reservoirs and service connections prior to customer meters.

This indicator can be derived from others as follows:

Real water losses (KL/km water main/day) = volumetric losses ML per year [as32]*1000 / 365 days / length of water mains [AS2]

Length of water mains is the value [AS2].

Reference: NPRF handbook 08-09

Units: kL/km water main /day

Comparison to SWIM definition 07-08: changed: SWIM07-08 used the number of connected properties to calculate this indicator from AS10, but as the number of service connections is not the same as the number of connected properties, this derivation is not valid. Data from previous years is not comparable.

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(A11), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? derived from AS2 and AS32

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: CS38

Title: Minimum flow (water)

SWIM category: Asset Performance - Water

Definition:

Minimum flow that customers receive at their connection.

Reference: DLG SWIM 2007

Units: L/min

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, SAMP: section 4: Asset Management: Water services, SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: CS39

Title: Minimum pressure (water)

SWIM category: Asset Performance - Water

Definition:

This is the minimum pressure that customers received at the connection.

The units for this indicator are kPa. Values expressed in other units, such as metres head, should be converted to kPa. Many useful website can assist with converting units, such as www.convertunits.com. To convert metres head to kPa multiple by 9.804.

Reference: DLG SWIM 2007, with modification by qldwater Directorate

Units: kPa

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, SAMP: section 4: Asset Management: Water services, SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: CS40

Title: Number of water connections with deficient pressure and/or flow

SWIM category: Asset Performance - Water

Definition:

Number of connections with a flow/pressure deficiency.

Reference: DLG SWIM 2007

Units: {Count}

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, SAMP: section 4: asset management: water services,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

3.9 Asset performance – sewerage

SWIM code: AS15

Title: Number of sewer main breaks and chokes

SWIM category: Asset Performance - Sewerage

Definition:

The sewerage breaks and chokes indicator includes:

- All gravity sewer mains

- All pressure mains (including common effluent pipelines, rising mains etc)

- All vacuum system mains of any diameter.

- Property connection sewers

This excludes:

- Pipelines carrying treated effluent

- Recycled water distribution and reticulation mains delivering water for urban areas; such mains are to be reported as water mains (Indicator AS2).

Choke: A confirmed partial or total blockage that may or may not result in a spill to the external environment from the sewer system.

Breaks or leaks: A break or leak is a failure of the sewer main which results in an interruption to the sewerage service.

Reference: NPRF Handbook 08-09

Units: {Count}

Comparison to SWIM definition 07-08: changed: definition now includes property connection sewers. Data from previous years is not comparable.

This indicator is used to derive the following indicators: AS12

This indicator is reported/used for: DERM, DIP, NPR(IA12),

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: AS12

Title: Number of sewer main breaks and chokes per 100 km

SWIM category: Asset Performance - Sewerage

Definition:

This indicator is derived others as follows:

Number of sewer main breaks and chokes per 100km mains = Number of sewer main breaks and cokes [AS15] / Length of sewer mains [AS5] x 100%

Reference: NPRF Handbook 08-09

Units: No./100km sewer main

Comparison to SWIM definition 07-08: changed: definition now includes property connection sewers. Data from previous years is not comparable.

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(A12), SAMP: Section 4: Asset Management: Sewerage services, SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? derived from AS5 and AS15

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: AS34

Title: Total number of property connection sewer main breaks and chokes

SWIM category: Asset Performance - Sewerage

Definition:

The property connection is a short sewer owned and operated by the sewerage agency, which connects the sewer main and the customer sanitary drain. It includes a junction on the sewer main, a property connection fitting, a vertical riser (in some cases) and sufficient straight pipes to ensure the property connection fitting is within the lot to be serviced (refer to the WSAA 02 Sewerage Code of Australia).

Reference: NPRF Handbook 08-09

Units: {Count}

Comparison to SWIM definition 07-08: new to SWIM, same as NPR07-08

This indicator is used to derive the following indicators: AS35

This indicator is reported/used for: DERM, NPR(IA13),

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: AS35

Title: Property connection sewer main breaks and chokes (per 100km of sewer main)

SWIM category: Asset Performance - Sewerage

Definition:

This indicator is derived others as follows:

Number of property connection sewer main breaks and chokes per 100km mains = Number of property connection sewer main breaks and cokes [AS34] / Length of sewer mains [AS5] x 100%

Reference:

Units: No./100km sewer main

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, NPR(A13), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? NPR A13. derived from AS5 and AS34

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: CS43

Title: Peak Wet Weather Flow

SWIM category: Asset Performance - Sewerage

Definition:

Peak Wet Weather Flow (PWWF) includes peak wet weather flow, groundwater infiltration and is rainfall dependent

Reference: qldwater Directorate

Units: kL/day

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: CS35

This indicator is reported/used for: ,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: CS35

Title: Sewage inflow and infiltration (peak day flow / average day flow)

SWIM category: Asset Performance - Sewerage

Definition:

Peak day flow (ML/day) divided by average day flow (ML/day). Infiltration includes stormwater, illegal stormwater connections and groundwater infiltration.

This indicator is calculated as:

Sewerage inflow and infiltration [CS35] = Peak wet weather flow [CS43] / ((Total volume sewage collected [WA18]*1000/356))

Reference: DLG SWIM 2007

Units: Ratio

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, SAMP: Section 4: Asset Management: Sewerage services, SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: CS44

Title: Sewage overflow to customer property (total annual)

SWIM category: Asset Performance - Sewerage

Definition:

An overflow occurs when untreated sewage spills or discharges and escapes from the sewerage system (i.e. pumping stations, pipes, maintenance holes or designed overflow structures) to the

external environment on customer properties (residential or commercial/industrial). The external environment is the area surrounding the infrastructure (e.g. pump station) from which a spill occurs, regardless of whether the external environment is owned by the water utility. An overflow structure from which a spill does not escape is not in the external environment. Overflows are those caused by system faults originating in the system under the water utility's responsibility. This does NOT include overflows caused by a blockage in the property connection sewer, or spills, discharges or overflows contained within emergency storages where no pollution of the surrounding environment occurs e.g. an emergency storage tunnel.

This indicator is determined as the number of sewer overflows in wet AND dry weather during the reporting period, of which the utility is aware and can attribute to its infrastructure. It should include both contained and uncontained spills.

Reference: NPRF handbook 07-08, modified by qldwater Directorate

Units: {Count}

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: CS36

This indicator is reported/used for: ,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: CS36

Title: Sewage overflow to customer property (number per 1000 connections)

SWIM category: Asset Performance - Sewerage

Definition:

This indicator is derived from others as follows:

sewage overflows to customer properties (per 1000 connections) = Total number sewage overflows to customer properties [CS44] / Number sewerage connected properties [CS8]

Reference: NPRF handbook 07-08, modified by qldwater Directorate

Units: No./1000 Connections

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, SAMP: Section 4: Asset Management: Sewerage services, SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: CS59

Title: Sewage overflows reported to environmental regulator (total, annual)

SWIM category: Asset Performance - Sewerage

Definition:

When untreated sewage spills or discharges and escapes from the sewerage system (i.e. pumping stations, pipes, maintenance holes or designed overflow structures) to the external environment,

and is required to be reported to the environmental regulator as per the utility's license. Overflows are those caused by system faults originating in the system under the water utility's responsibility. This includes:

- Property service connections that are owned or maintained by the utility

This does NOT include:

- spills that are not reported to the environmental regulator

- spills, discharges or overflows contained within emergency storages where no pollution of the environment occurs e.g. an emergency storage tunnel.

External environment: is the area surrounding the infrastructure (e.g. pump station) from which a spill occurs, regardless of whether the external environment is owned by the water utility. An overflow structure from which a spill does not escape is not in the external environment.

Reference: NPRF Handbook 08-09

Units: {Count}

Comparison to SWIM definition 07-08: changed: This replaces CS45 from SWIM07-08 (sewer overflows to the environment). Only sewage overflows reported to the regulator are reported. Data from previous years is not comparable.

This indicator is used to derive the following indicators: EN13

This indicator is reported/used for: DERM, NPR(IE13),

If used in NPR reporting, is this an auditable indicator? yes. NPR IE13

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: EN13

Title: Sewage overflows reported to the environmental regulator (per 100 km of main)

SWIM category: Asset Performance - Sewerage

Definition:

This indicator is derived others as follows:

sewage overflows reported to the environmental regulator (per 100 km mains) = Total number sewage overflows reported to the regulator [CS59]/Length sewerage mains [AS5]*100

Reference: NPRF Handbook 08-09

Units: No./100km sewer main

Comparison to SWIM definition 07-08: new

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(E13), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: AS36

Title: Total number sewage overflows

SWIM category: Asset Performance - Sewerage

Definition:

An overflow occurs when untreated sewage spills or discharges and escapes from the sewerage system (i.e. pumping stations, pipes, maintenance holes or designed overflow structures) to the external environment. The external environment is the area surrounding the infrastructure (e.g. pump station) from which a spill occurs, regardless of whether the external environment is owned by the water utility. An overflow structure from which a spill does not escape is not in the external environment. Overflows are those caused by system faults originating in the system under the water utility's responsibility. This does NOT include overflows caused by a blockage in the property connection sewer, or spills, discharges or overflows contained within emergency storages where no pollution of the surrounding environment occurs e.g. an emergency storage tunnel.

This indicator is determined as the number of sewer overflows in wet AND dry weather during the reporting period, of which the utility is aware and can attribute to its infrastructure. It should include both contained and uncontained spills.

Reference: NPRF handbook 07-08, modified by qldwater Directorate

Units: No./100km sewer main

Comparison to SWIM definition 07-08: new

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: ,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: AS37

Title: Total number sewage overflows (per 100km sewer main)

SWIM category: Asset Performance - Sewerage

Definition:

This indicator is derived others as follows:

Number sewage overflows (per 100 km mains) [AS37] = Total number sewage overflows [AS36] / (Length sewerage mains [AS5]/100)

Reference: NPRF handbook 07-08, modified by qldwater Directorate

Units: No./100km sewer main

Comparison to SWIM definition 07-08: new

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, SAMP: Section 4: Asset Management: Sewerage services, SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

3.10 Customer service – sewerage

SWIM code: CS28

Title: Number of sewage odour complaints

SWIM category: Customer Service - sewerage

Definition:

This includes all complaints received, except in the instance that the Service Provider can prove beyond reasonable doubt that the odour was attributable to an external source. Note: Any contact that results in an odour issue (other than those attributable to an external source) is counted as a complaint.

Complaint: Australian Standards define a complaint as an "expression of dissatisfaction made to an organization, related to its products, or the complaints-handling process itself, where a response or resolution is explicitly or implicitly expected." (AS ISO 10002-2006). A complaint can be a written or verbal expression of dissatisfaction about an action, proposed action or failure to act by the water utility, its employees or contractors.

Notes:

1. Whilst complaints about third parties over which the utility has no control should not be counted as complaints, complaints about third parties where the water utility does have control (i.e. contractors) should be included.

2. Complaints from separate customers arising from the same cause count as separate complaints.

3. Includes complaints received by the water utility in person, by mail, fax, phone, email or text messaging.

4. A water utility must be able to differentiate a 'query' versus a 'complaint' in order to be materially compliant for this indicator. An enquiry can be defined as "A request by a customer for information about a product or service provided by the service provider that does not reflect dissatisfaction."

Reference: DLG2007, NPRF Handbook 08-09 (for complanys)

Units: {Count}

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, SAMP: section 4: asset management: sewerage services,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: CS21

Title: Sewerage service complaints (number)

SWIM category: Customer Service - sewerage

Definition:

The total number of complaints received by the sewerage utility that relate to sewerage service quality and reliability. Includes all complaints concerning:

- sewer blockages and spills

- trade waste services

- sewage odours

- sewerage system reliability, and

- all other sewerage issues.

Complaint: Australian Standards define a complaint as an "expression of dissatisfaction made to an organization, related to its products, or the complaints-handling process itself, where a response or resolution is explicitly or implicitly expected." (AS ISO 10002-2006). A complaint can be a written or verbal expression of dissatisfaction about an action, proposed action or failure to act by the water utility, its employees or contractors.

Notes:

1. Whilst complaints about third parties over which the utility has no control should not be counted as complaints, complaints about third parties where the water utility does have control (i.e. contractors) should be included.

2. Complaints from separate customers arising from the same cause count as separate complaints.

3. Includes complaints received by the water utility in person, by mail, fax, phone, email or text messaging.

4. A water utility must be able to differentiate a 'query' versus a 'complaint' in order to be materially compliant for this indicator. An enquiry can be defined as "A request by a customer for information about a product or service provided by the service provider that does not reflect dissatisfaction."

Reference: NPRF Handbook 08-09

Units: {Count}

Comparison to SWIM definition 07-08: changed: must exclude queries. Data from pervious may or may not be comparable depending upon whether queries were previously included.

This indicator is used to derive the following indicators: CS11, CS13

This indicator is reported/used for: DERM, DIP, NPR(IC11),

If used in NPR reporting, is this an auditable indicator? yes unless only reporting CS13

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: CS11

Title: Sewerage service complaints (per 1000 properties)

SWIM category: Customer Service - sewerage

Definition:

This indicator is derived others as follows:

Sewerage service complaints per 1000 properties [CS11] = Number of sewerage service complaints [CS21] / Number connected properties: sewerage [CS8]

Reference: NPRF handbook 07-08

Units: No./1000 Connections

Comparison to SWIM definition 07-08: changed: must exclude queries. Data from pervious may or may not be comparable depending upon whether queries were previously included.

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(C11), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: CS29

Title: All sewerage service complaints

SWIM category: Customer Service - sewerage

Definition:

The total number of complaints received by the wastewater utility that relate to wastewater, includes all complaints concerning:

- Account payment and billing

- Affordability

- Behaviour or staff or agents

- Sewerage odours

- Sewerage services

- Trade waste services

- All other sewerage issues

Where a customer rings to query an account (e.g. could you please explain how the variable sewerage component of my bill is calculated, or could you explain how my bill is calculated) this is not to be recorded as a complaint unless the customer identifies that they have rung to make a complaint. If the customer rings to make an enquiry but remains dissatisfied or the enquiry identifies an error in the bill this should be recorded as a complaint.

If a customer makes repeated contact on the same billing issue this should be recorded as a complaint.

If an operator is doubtful whether the customer is making en enquiry or a complaint they should ask the customer if they want a complaint to be recorded.

Reference: DLG SWIM 2007

Units: {Count}

Comparison to SWIM definition 07-08: changed: must exclude queries. Data from pervious may or may not be comparable depending upon whether queries were previously included.

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: CS46

Title: Number of sewerage incidents requiring WSP assistance/repair onsite

SWIM category: Customer Service - sewerage

Definition:

This is the total number of incidents that require WSP staff to attend to repair/assist with rectifying the sewerage incident (e.g. sewerage overflow or burst).

For SWIM, it is used the weight schemes values for the time to repond to incidents and the duration of an interruption (CS33 and CS60)

Reference: qldwater Directorate

Units: {Count}

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: ,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: CS33

Title: (Average) Response/reaction time for incidents (sewerage)

SWIM category: Customer Service - sewerage

Definition:

This is the average response time for sewerage service incidents. It is determined as the time it takes to get a person/ team on-site to commence fixing the problem.

For calculating WSP-wide values from scheme values, the schemes values are weighting using the number of incidents WSP respond to (CS46)

Reference: DLG SWIM 2007

Units: mins

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, SAMP: section 4: asset management: sewerage services, SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: CS60

Title: Average sewerage interruption (minutes)

SWIM category: Customer Service - sewerage

Definition:

Average sewerage interruption: The average duration for which a customer is without a sewerage service due to unplanned work. A sewerage interruption is any event causing a significant reduction of sewerage service due to any cause. Interruptions exclude those caused by breaks or chokes in the property connection sewer.

Unplanned sewerage service interruption: This is when the customer has NOT received at least 24 hours notification of the interruption (or as otherwise prescribed by regulatory requirements). It also includes situations where the duration of a planned interruption exceeds that which was

originally notified. In this circumstance the length of the entire interruption is counted. All un-notified interruptions caused by third parties should be included.

Duration of an unplanned sewerage service interruption: An interruption commences when the water utility is aware that sewerage services are no longer available and ceases when 'normal' service is restored

This is calculated by summing the total minutes of interruptions and div9iding by the number of interruptions.

For calculating WSP-wide values from scheme values, the schemes values are weighting using the number of incidents WSP respond to (CS46)

Reference: NPRF Handbook 08-09

Units: mins

Comparison to SWIM definition 07-08: changed. This has replaces CS16 (average sewerage break or choke repair time). Data from previous years is not comparable.

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(C16), SAMP: section 4: asset management: sewerage services, SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? yes. NPR C16

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: CS51

Title: Average number working days for work to commence on installations or connections

SWIM category: Customer Service - sewerage

Definition:

Average number working days for work to commence on installations or connections

Reference: SAMP guidelines

Units: {Count}

Comparison to SWIM definition 07-08: new

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, SAMP: Section 5: CSS: sewerage services, SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: CS52

Title: Average number working days to provide quotations for non-standard connections

SWIM category: Customer Service - sewerage

Definition:

Average number working days to provide quotations for non-standard connections

Reference: SAMP guidelines

Units: {Count}

Comparison to SWIM definition 07-08: new

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, SAMP: Section 5: CSS: sewerage services, SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

3.11 Customer Service – water

SWIM code: CS20

Title: Number of drinking water quality complaints

SWIM category: Customer Service - water

Definition:

The total number of complaints received by the water business that relate to water quality, including water quality complaints resulting from operational practices. With respect to water quality, this is any complaint regarding:

- discolouration

- taste

- odour

- stained washing

- illness, or

- cloudy water (e.g. caused by oxygenation), etc.

It excludes complaints relating to:

- service interruption

- adequacy of service

- restrictions, or

- pressure, etc.

(It excludes complaints related to these issues, however, a complaint where this issue is one component that leads to another issue may be included as a complaint in this or another complaint category.)

Complaint: Australian Standards define a complaint as an "expression of dissatisfaction made to an organization, related to its products, or the complaints-handling process itself, where a response or resolution is explicitly or implicitly expected." (AS ISO 10002-2006). A complaint can be a written or verbal expression of dissatisfaction about an action, proposed action or failure to act by the water utility, its employees or contractors.

Notes

1. Whilst complaints about third parties over which the utility has no control should not be counted as complaints, complaints about third parties where the water utility does have control (i.e. contractors) should be included.

2. Complaints from separate customers arising from the same cause count as separate complaints.

3. Includes complaints received by the water utility in person, by mail, fax, phone, email or text messaging.

4. A water utility must be able to differentiate a 'query' versus a 'complaint' in order to be materially compliant for this indicator. An enquiry can be defined as "A request by a customer for information about a product or service provided by the service provider that does not reflect dissatisfaction."

Reference: NPRF handbook 08-09

Units: {Count}

Comparison to SWIM definition 07-08: changed: (1) queries must be excluded - previously they may have been included; (2) This definition has been changed to exclude "any contact that results in a water quality issue is counted as a complaint". Data from previous years may or may not be

comparable.

This indicator is used to derive the following indicators: CS9, CS13

This indicator is reported/used for: DERM, DIP, NPR(IC9),

If used in NPR reporting, is this an auditable indicator? yes unless only reporting CS13

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes

SWIM code: CS9

Title: Number of drinking water quality complaints (per 1000 properties)

SWIM category: Customer Service - water

Definition:

This indicator is derived others as follows:

Number of drinking water quality complaints [CS9] = Number of drinking water quality complaints [CS20] / Number connected properties: water supply [CS4]

Reference: NPRF handbook 08-09

Units: No./1000 Connections

Comparison to SWIM definition 07-08: changed: (1) queries must be excluded - previously they may have been included; (2) This definition has been changed to exclude "any contact that results in a water quality issue is counted as a complaint". Data from previous years may or may not be comparable.

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(C9), SAMP: section 4: asset management: water services, SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes

SWIM code: CS27

Title: Number of Drinking Water Incidents

SWIM category: Customer Service - water

Definition:

An "incident" is any event affecting the water service provider's infrastructure, or the resource, which adversely affects the water quality delivered to customers, and to which water quality complaints can be attributed.

Reference: DLG SWIM 2007

Units: {Count}

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, SAMP: section 4: asset management: water services,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes

SWIM code: CS22

Title: Number water service complaints

SWIM category: Customer Service - water

Definition:

A water service complaint is any complaint received by the water utility concerning:

- bursts

- leaks

- service interruptions

- adequacy of service

- water pressure

- water reliability

When a customer reports a service interruption, this is not counted as a complaint unless the customer expresses dissatisfaction about the interruption.

It does not include complaints relating to:

- water quality

- billing and accounts

- government pricing policy, or

- tariff structures.

Complaint

Australian Standards define a complaint as an "expression of dissatisfaction made to an organization, related to its products, or the complaints-handling process itself, where a response or resolution is explicitly or implicitly expected." (AS ISO 10002-2006)

A complaint can be a written or verbal expression of dissatisfaction about an action, proposed action or failure to act by the water utility, its employees or contractors.

Notes:

1. Whilst complaints about third parties over which the utility has no control should not be counted as complaints, complaints about third parties where the water utility does have control (i.e. contractors) should be included.

2. Complaints from separate customers arising from the same cause count as separate complaints.

3. Includes complaints received by the water utility in person, by mail, fax, phone, email or text messaging.

4. A water utility must be able to differentiate a 'query' versus a 'complaint' in order to be materially compliant for this indicator. An enquiry can be defined as "A request by a customer for information about a product or service provided by the service provider that does not reflect dissatisfaction."

Reference: NPRF handbook 08-09

Units: {Count}

Comparison to SWIM definition 07-08: changed: must exclude queries. Data from pervious may or may not be comparable depending upon whether queries were previously included.

This indicator is used to derive the following indicators: CS10, CS13

This indicator is reported/used for: DERM, DIP, NPR(IC10),

If used in NPR reporting, is this an auditable indicator? yes unless only reporting CS13

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: CS10

Title: Number water service complaints (per 1000 properties)

SWIM category: Customer Service - water

Definition:

This indicator is derived others as follows:

Number of water service complaints per 1000 properties [CS10] = Number of water service complaints [CS22] / Number connected properties: water supply [CS4]

Reference: NPRF handbook 08-09

Units: No./1000 connections

Comparison to SWIM definition 07-08: changed: must exclude queries. Data from pervious may or may not be comparable depending upon whether queries were previously included.

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(C10), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: CS41

Title: Number planned interruptions

SWIM category: Customer Service - water

Definition:

A water supply interruption is any event causing a total loss of water supply due to any cause. Interruptions do not include those caused by bursts or leaks in the property service (mains to meter connection), unless the property connections are owned or maintained by the water utility or the burst or leak requires the mains to be shut down for repair.

A planned water supply interruption is when the customer has received at least 24 hours notification (or as otherwise prescribed by regulatory requirements) of the interruption. It does not include situations where the duration of a planned interruption exceeds that which was originally notified. In this circumstance the length of the entire interruption is counted as an unplanned interruption.

Reference: NPRF handbook 08-09

Units: No/year

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: CS31

This indicator is reported/used for: DERM, SAMP: section 4: asset management: water services: day to day continuity of service,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: CS42

Title: Number unplanned interruptions

SWIM category: Customer Service - water

Definition:

A water supply interruption is any event causing a total loss of water supply due to any cause. Interruptions do not include those caused by bursts or leaks in the property service (mains to meter connection), unless the property connections are owned or maintained by the water utility or the burst or leak requires the mains to be shut down for repair.

An unplanned water supply interruption is when the customer has NOT received at least 24 hours notification (or as otherwise prescribed by regulatory requirements) of the interruption. It also includes situations where the duration of a planned interruption exceeds that which was originally notified. In this circumstance the length of the entire interruption is counted. All un-notified interruptions caused by third parties should be included.

Reference: NPRF handbook 08-09

Units: No/year

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: CS17, CS31

This indicator is reported/used for: DERM, NPR(IC17), SAMP: section 4: asset management: water services: day to day continuity of service,

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: CS30

Title: Average duration of a planned interruption to water supply

SWIM category: Customer Service - water

Definition:

The average duration for which a customer is without supply due to an unplanned interruption.

Notes:

1. Water supply interruption (customer service): A water supply interruption is any event causing a total loss of water supply due to any cause. Interruptions do not include those caused by bursts or leaks in the property service (mains to meter connection), unless the property connections are owned or maintained by the water utility or the burst or leak requires the mains to be shut down for repair.

2. Planned Interruption: An interruption for which the utility has provided at least 24 hours' advanced notification (or as otherwise prescribed by regulatory requirements). Situations where the duration of a planned interruption exceeds that which was originally notified are considered to be unplanned interruptions.

Calculations:

Average duration of planned interruptions = Total minutes off water supply / total number of customers affected.

Total minutes off water supply = Minutes interruption x number of customers affected

Reference: NPRF handbook 08-09, qldwater

Units: mins

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, SAMP: section 4: asset management: water services: day to day continuity of service, SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: CS15

Title: Average duration of an unplanned interruption- water

SWIM category: Customer Service - water

Definition:

The average duration for which a customer is without supply due to an unplanned interruption.

Definitions:

1. Water supply interruption (customer service): A water supply interruption is any event causing a total loss of water supply due to any cause. Interruptions do not include those caused by bursts or leaks in the property service (mains to meter connection), unless the property connections are owned or maintained by the water utility or the burst or leak requires the mains to be shut down for repair.

2. Unplanned water supply interruption: This is when the customer has NOT received at least 24 hours notification (or as otherwise prescribed by regulatory requirements) of the interruption. It also includes situations where the duration of a planned interruption exceeds that which was originally notified. In this circumstance the length of the entire interruption is counted. All un-notified interruptions caused by third parties should be included.

3. Duration of an unplanned water supply interruption: An interruption commences when the water utility is aware that 'water is no longer available at the customer's first cold water tap and ceases 'when "normal" service is restored' (OFWAT Return Reporting Requirements) i.e. when the last valve has been opened. Where the utility is aware of a water supply interruption via internal systems alarms, the duration commences when the alarm is raised. If a customer notifies the water utility they are without water, the duration commences at the time of notification. If the water utility is responding to a notification of a broken main, unless this notification also indicates a loss of supply, the duration commences once the break is isolated (if repairs are not being done under pressure).

Calculations:

Average duration of unplanned interruption = Total minutes off water supply / total number of customers affected.

Total minutes off water supply = Minutes interruption x number of customers affected

Reference: NPRF handbook 08-09

Units: mins

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(C15), SAMP: section 4: asset management: water services: day to day continuity of service, SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: CS17

Title: Average frequency of unplanned interruptions – water (per 1000 properties).

SWIM category: Customer Service - water

Definition:

This indicator is derived others as follows:

Average frequency of unplanned interruptions - per 1000 properties [CS17] = Number unplanned incidents [CS42] / Number of connected properties - water [CS4]

Reference: NPRF handbook 08-09

Units: No./1000 connections/year

Comparison to SWIM definition 07-08: same (although **Title** has changed)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(C17), SAMP: section 4: asset management: water services: day to day continuity of service, SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? derived from CS4 and CS42

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: CS31

Title: Relative incidence of planned incidents (i.e. number planned / number unplanned) Water supply

SWIM category: Customer Service - water

Definition:

This indicator is derived others as follows:

Relative incidence of planned incidents [CS31] = Number planned incidents [CS41] / Number unplanned incidents [CS42]

Reference: qldwater Directorate

Units: Ratio

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, SAMP: section 4: asset management: water services: day to day continuity of service, SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: CS47

Title: Number of water incidents requiring Council attendance to rectify/assist

SWIM category: Customer Service - water

Definition:

This is the total number of incidents that require Council staff to attend to repair/assist with rectifying the water incident (e.g. burst or leaks).

Reference: qldwater Directorate

Units: {Count}

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: ,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: CS53

Title: Percentage of enquiries about interruptions that were responded to within 4 hours

SWIM category: Customer Service - water

Definition:

Percentage of enquiries about interruptions that were responded to within 4 hours

Reference: SAMP guidelines

Units: %

Comparison to SWIM definition 07-08: new

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, SAMP: section 5: CSS: water supply, SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: CS37

Title: (Average) Response/reaction time for incidents (bursts & leaks)

SWIM category: Customer Service - water

Definition:

This is the average response time for water service incidents, regardless of whether the incident

causes an interruption to customers. It is determined as the time it takes to get a person/ team on-site to commence fixing the problem.

Reference: DLG SWIM 2007, with modification by qldwater Directorate

Units: mins

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, SAMP: section 4: asset management: water services: day to day continuity of service, SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: CS32

Title: Time for restoration of water services (e.g. x% restored within Y hours)

SWIM category: Customer Service - water

Definition:

This provides an indication of the typical time to restores water services after an incident has been detected/reported. It is the time from when the interruption is reported/detected to when normal service is restored to the customer, and is reported as x% within Y mins (e.g. 90% within 180 mins).

Reference: qldwater Directorate

Units: NA

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, SAMP: section 4: asset management: water services: day to day continuity of service,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: CS54

Title: Number interruptions for which 48 hours notice was provided

SWIM category: Customer Service - water

Definition:

Number interruptions for which 48 hours notice was provided

Reference: SAMP guidelines

Units: {Count}

Comparison to SWIM definition 07-08: new

This indicator is used to derive the following indicators: CS55

This indicator is reported/used for: ,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: CS55

Title: Number interruptions for which 48 hours notice was provided (per 1000 connections)

SWIM category: Customer Service - water

Definition:

Number interruptions for which 48 hours notice was provided (per 1000 connections)

Reference: SAMP guidelines

Units: No./1000 connections/year

Comparison to SWIM definition 07-08: new

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, SAMP: section 5: CSS: water supply, SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: CS56

Title: Average number of working days to complete installations and connections

SWIM category: Customer Service - water

Definition:

Average number of working days to complete installations and connections

Reference: SAMP guidelines

Units: {Count}

Comparison to SWIM definition 07-08: new

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, SAMP: section 5: CSS: water supply, SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: CS57

Title: Average number of working days to complete financial or engineering assessment for installations

SWIM category: Customer Service - water

Definition:

Average number of working days to complete financial or engineering assessment for installations

Reference: SAMP guidelines

Units: {Count}

Comparison to SWIM definition 07-08: new

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, SAMP: section 5: CSS: water supply, SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: CS58

Title: Percentage of decisions on applications for variations to water restrictions that were determined within 2 working days

SWIM category: Customer Service - water

Definition:

Percentage of decisions on applications for variations to water restrictions that were determined within 2 working days

Reference: SAMP guidelines

Units: %

Comparison to SWIM definition 07-08: new

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, SAMP: section 5: CSS: water supply, SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: CS48

Title: Total number of restrictions applied for non-payment of water bill

SWIM category: Customer Service - water

Definition:

The total number of restrictions (or disconnections) applied for non-payment of water bills in the reporting period.

Includes all cases where restriction devices are fitted to reduce water flows to a customer due to non-payment of accounts. If a water business disconnects rather than uses a restriction device this is also counted.

Includes restrictions taken against both residential and non-residential customers.

It does not include:

- where a business threatens to restrict a supply, but does not undertake the fitting of a restrictor

- disconnections carried out due to unsafe infrastructure connected to the water utility's system,

and

- customers who choose to disconnect from the water utilities supply (e.g. a due to preference for a tank water supply).

Reference: NPRF Handbook 08-09

Units: {Count}

Comparison to SWIM definition 07-08: new

This indicator is used to derive the following indicators: CS18

This indicator is reported/used for: DERM, NPR(IC18),

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: CS18

Title: Number of restrictions applied for non-payment of water bill (per 1000 properties)

SWIM category: Customer Service - water

Definition:

This indicator is derived others as follows:

Number of customers to which restrictions applied for non-payment of water bill (per 1000 properties) [CS18] = Number of customers to which restrictions applied for non-payment of water bill [CS48] / Number of water connected properties [CS4]

Reference: NPRF Handbook 08-09

Units: No./1000 connections/year

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: CS34

This indicator is reported/used for: DERM, DIP, NPR(C18), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? derived from CS48 and CS4

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: CS49

Title: Total number of customers to which legal action applied for non-payment of water bill

SWIM category: Customer Service - water

Definition:

The total number of legal actions applied for non-payment of water bills in the reporting period.

Includes legal actions taken against both residential and non-residential customers. Legal action commences from issue of summons. It does not include where a utility threatens to take legal action, but does not proceed

Note: Multiple restrictions, disconnections/legal actions for one customer should be counted as separate occasions.

Reference: NPRF Handbook 08-09

Units: {Count}

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: CS19

This indicator is reported/used for: DERM, NPR(IC19),

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: CS19

Title: Number of legal actions applied for non-payment of water bill (per 1000 properties)

SWIM category: Customer Service - water

Definition:

This indicator is derived others as follows:

Number of legal actions applied for non-payment of water bill (per 1000 properties) [CS19] = Number of customers to which restrictions applied for non-payment of water bill [CS49] / Number of water connected properties [CS4]

Reference: NPRF Handbook 08-09

Units: No./1000 connections/year

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: CS34

This indicator is reported/used for: DERM, DIP, NPR(C19), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? derived from CS49 and CS4

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: CS34

Title: Number of restrictions or legal action applied for non-payment of water bill (per 1000 properties)

SWIM category: Customer Service - water

Definition:

This indicator is derived others as follows:

Number of restrictions or legal actions for non-payment per 1000 properties [CS34] = Number restrictions per 1000 properties [CS18] + Number of legal actions per 1000 properties [CS19]

Reference: DLG SWIM 2007

Units: No./1000 connections/year

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: , DIP,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

3.12 Customer Service – overall

SWIM code: CS23

Title: Number of billing and account complaints – water and sewerage

SWIM category: Customer Service - overall

Definition:

This includes all complaints concerning:

- account payment

- financial loss or overcharging

- billing errors and

- affordability

Where a customer rings to query an account (e.g. could you please explain how the variable sewerage component of my bill is calculated, or could you explain how my bill is calculated) this is not to be recorded as a complaint unless the customer identifies that they have rung to make a complaint. If the customer rings to make an enquiry but remains dissatisfied or the enquiry identifies an error in the bill this should be recorded as a complaint. If a customer makes repeated contact on the same billing issue this should be recorded as a complaint. If an operator is doubtful whether the customer is making an enquiry or a complaint they should ask the customer if they want a complaint to be recorded.

It does not include complaints relating only to:

- government pricing policy

- tariff structures, or

- a correctly calculated bill is too high.

Note: It excludes complaints related to these issues, however, a complaint where this issue is one component that leads to another issue may be included as a complaint in this or another complaint category.

Complaint

Australian Standards define a complaint as an "expression of dissatisfaction made to an organization, related to its products, or the complaints-handling process itself, where a response or resolution is explicitly or implicitly expected." (AS ISO 10002-2006)

A complaint can be a written or verbal expression of dissatisfaction about an action, proposed action or failure to act by the water utility, its employees or contractors.

Notes:

1. Whilst complaints about third parties over which the utility has no control should not be counted as complaints, complaints about third parties where the water utility does have control (i.e. contractors) should be included.

2. Complaints from separate customers arising from the same cause count as separate complaints.

3. Includes complaints received by the water utility in person, by mail, fax, phone, email or text messaging.

4. A water utility must be able to differentiate a 'query' versus a 'complaint' in order to be materially compliant for this indicator. An enquiry can be defined as "A request by a customer for information about a product or service provided by the service provider that does not reflect dissatisfaction."

Reference: NPRF Handbook 08-09

Units: {Count}

Comparison to SWIM definition 07-08: changed: must exclude queries. Data from pervious may or may not be comparable depending upon whether queries were previously included.

This indicator is used to derive the following indicators: CS12, CS13

This indicator is reported/used for: DERM, DIP, NPR(IC12),

If used in NPR reporting, is this an auditable indicator? yes unless only reporting CS13

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: CS12

Title: Billing and account complaints – water and sewerage (per 1000 properties)

SWIM category: Customer Service - overall

Definition:

This indicator is derived from others as follows:

Number of billing and accounts complaints (water and sewerage) per 1000 properties [CS12] = Number complaints [CS23] / Number of connected properties [CS4]

Reference: NPRF Handbook 08-09

Units: No./1000 connections/year

Comparison to SWIM definition 07-08: changed: must exclude queries. Data from pervious may or may not be comparable depending upon whether queries were previously included.

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(C12), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: CS24

Title: Other water and sewerage complaints

SWIM category: Customer Service - overall

Definition:

These are complaints concerned with water and sewerage matters that are not:

- complaints about water service (see CS22)

- complaints sewerage service (see CS21)

- complaints about water quality (see CS20)

- complaints about billing and accounts (water and sewerage) (see CS23)

Complaint

Australian Standards define a complaint as an "expression of dissatisfaction made to an organization, related to its products, or the complaints-handling process itself, where a response or resolution is explicitly or implicitly expected." (AS ISO 10002-2006)

A complaint can be a written or verbal expression of dissatisfaction about an action, proposed

action or failure to act by the water utility, its employees or contractors.

Notes:

1. Whilst complaints about third parties over which the utility has no control should not be counted as complaints, complaints about third parties where the water utility does have control (i.e. contractors) should be included.

2. Complaints from separate customers arising from the same cause count as separate complaints.

3. Includes complaints received by the water utility in person, by mail, fax, phone, email or text messaging.

4. A water utility must be able to differentiate a 'query' versus a 'complaint' in order to be materially compliant for this indicator. An enquiry can be defined as "A request by a customer for information about a product or service provided by the service provider that does not reflect dissatisfaction."

Reference: qldwater Directorate

Units: {Count}

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: CS13

This indicator is reported/used for: , DIP,

If used in NPR reporting, is this an auditable indicator? yes unless only reporting CS13

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: CS13

Title: Total water and Sewerage service complaints (per 1000 Prop)

SWIM category: Customer Service - overall

Definition:

This is the total number of complaints received by the water utility that relate to water or sewerage services. This includes all complaints concerning:

- bursts

- leaks

- service interruptions

- adequacy of service

- water pressure

- water quality or reliability

- sewerage service complaints

- sewage odours

- affordability

- billings, and

- behaviour of staff or agents.

When a customer reports a service interruption, this is not counted as a complaint unless the customer expresses dissatisfaction about the interruption.

It does not include complaints relating to:

- government pricing policy, or

- tariff structures.

This indicator is derived others as follows:

Total number of water and sewerage complaints per 1000 properties [CS13] = (Number sewerage service complaints [CS21] + Number of water service complaints [CS22] + Number of water quality complaints [CS20] + Number of billing and accounts complaints (water and sewerage) [CS23] + Number of Other complaints (water and sewerage) [CS24]) / Number connected properties (water) [CS4]

Reference: NPRF handbook 07-08, modified by qldwater Directorate

Units: No./1000 connections/year

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(C13), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? yes if not auditing CS4, CS20, CS21, CS22, CS23 and CS24

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: CS14

Title: Per cent of calls answered by an operator within 30 seconds (%)

SWIM category: Customer Service - overall

Definition:

Total number of calls to an operator:

The total number of calls received by a retailer that were handled by an operator or customer service operator, and in the case of an IVR system covers the number of calls where the customer has selected the relevant operator option (i.e. indicated they wish to be connected to an operator or customer service officer).

This indicator excludes all calls that do not require operator attention:

- IVR calls where the customer does not select an operator option

- Calls that are abandoned before the operator option is selected

Calls after the operator option is selected but are abandoned before 30 seconds should be included in the total number of calls to an operator, but excluded from the calls answered within 30 seconds.

Note:

1. If appropriate, state wide utilities where only one average connect time to an operator is supplied for the whole water business rather than a value for the metropolitan area only, a footnote should accompany the value.

2. Only include calls that are answered by an operator who is able to respond to the customer's enquiry rather place the customer in a queue.

3. For IVR systems, the measurement period is calculated from the time that the customer selects an operator option. If the caller's question is answered by the IVR, meaning they don't need to speak to an operator, the call is not counted

4. For non-IVR systems, the measurement period commences when the call is received by the switchboard until the call is answered by an operator

5. Calls that are abandoned before 30 seconds are excluded from the calculation

6. After business hours to be included in calculation

Reference: NPRF Handbook 08-09

Units: %

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, NPR(C14), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

3.13 Compliance and treatment – sewage

SWIM code: EN1

Title: Percent of sewage treated to a primary level

SWIM category: Compliance & treatment- sewerage

Definition:

Primary treatment is the first major treatment process in a sewage treatment facility, principally designed to remove a substantial amount of suspended matter, but little or no colloidal or dissolved matter. Typical primary sewage treatment processes may include clarification (with or without chemical treatment, to accomplish solid-liquid separation), grease removal and screens.

[EN1] is calculated as:

Percent of sewage treated to a primary level [EN1] = (Total volume of sewage collected receiving only primary treatment / Total volume of sewage collected) x 100%

Note: The sum of the indicators EN1, EN2 and EN3 should equal 100%

Reference: NPRF Handbook 08-09

Units: %

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(E1),

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: EN2

Title: Percent of sewage treated to a secondary level

SWIM category: Compliance & treatment- sewerage

Definition:

Typically, a biological treatment process that is designed to remove approximately 85 per cent of the Biological Oxygen Demand (BOD) and influent suspended solids. Some nutrients may incidentally be removed, and ammonia may be converted to nitrate. Typical secondary sewage treatment processes may include sand filtration, disinfection, a polishing step (to lower suspended solids and bacterial levels), activated-sludge processes, anaerobic plus aerobic processes, biological filters and lagoons (aerated, facultative, maturation or polishing).

[EN2] is calculated as follows:

Per cent of sewage treated to a secondary level [EN2] = (Total volume of sewage collected receiving secondary treatment but not including that secondary treated sewage that is further treated to tertiary level / Total volume of sewage collected) x 100%

Note: The sum of the indicators EN1, EN2 and EN3 should equal 100%

Reference: NPRF Handbook 08-09

Units: %

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(E2),

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: EN3

Title: Percent of sewage treated to a tertiary level

SWIM category: Compliance & treatment- sewerage

Definition:

Tertiary or advanced treatment is principally designed to remove nutrients, such as phosphorus (typically <2 mg/L) and/or nitrogen (typically <15 mg/L). A high percentage of effluent suspended solids (typically >95 per cent) are also removed. Tertiary treatment may additionally target other contaminants of concern, e.g. toxicants and salt for discharges into sensitive waterways or reuse applications where high quality recycled water is required. Typical tertiary sewage treatment processes may include biological nutrient removal plants, chemical dosing of secondary plants for nutrient removal (including lagoons), enhanced pond treatment systems for nutrient removal, reverse osmosis and advanced filtration systems, membrane bioreactors and secondary treatment plus grass plots or wetlands for nutrient removal.

[EN3] is calculated as:

Per cent of sewage treated to a tertiary level [EN3] = (Total volume of sewage collected receiving tertiary treatment) / Total volume of sewage collected) x 100%

Note: The sum of the indicators EN1, EN2 and EN3 should equal 100%

Reference: NPRF Handbook 08-09

Units: %

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(E3),

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: EN4

Title: Percent of sewage volume treated that was compliant

SWIM category: Compliance & treatment- sewerage

Definition:

The sewage treatment plant compliance is the number of scheduled samples that complied in the reporting period divided by the total number of scheduled samples in the reporting period.

The sampling schedule is that specified in the utility's licence.

Calculations:

% vol compliance = (No. of scheduled samples complying with licence limits) / Total No. of scheduled samples in reporting period

Notes:

1. Where the licence limit specifies a 90th percentile limit for the treatment plant for the reporting period and the number of samples complying divided by the total number of scheduled samples is greater than 90%, then as compliance for that treatment plant

is greater than the licence limit, compliance is deemed to be 100%.

2. Compliance for a utility with more than one treatment plant is calculated as the weighted average of sewage treated at all treatment plants that complied per reporting period = (STP1 compliance x volume treated + STP2 compliance x volume treated + ……..) / Total volume treated for all treatment plants in reporting period

Reference: NPRF Handbook 08-09

Units: %

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, NPR(E4), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: EN5

Title: Number of sewage treatment plants compliant at all times

SWIM category: Compliance & treatment- sewerage

Definition:

Compliance is where the sewage treatment works effluent meets the licence condition prescribed by the environmental regulator. Non-compliance is where the sewage treatment works effluent does not meet such standards or where a financial (greater than $10,000 per incident) or other penalty has been imposed or where the business has had any successful litigation against it by the environmental regulator.

Number of sewage treatment plants compliant at all times as a ratio of total number of sewerage treatment plants (indicator A4) e.g. '5 of 6'.

Reference: NPRF Handbook 08-09

Units: {Count}

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(E5),

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: EN6

Title: Public disclosure of your sewage treatment plant's performance

SWIM category: Compliance & treatment- sewerage

Definition:

Public disclosure is demonstrated by publishing the sewage treatment plant performance for the

current financial year. Such disclosure could be on a public website or in a report available to the public and should include detailed results for key parameters in the treatment plant licence. For example, Biochemical Oxygen Demand (BOD) and Suspended Solids (SS). Reported test results should be on the basis of tests carried out by a National Association of Testing Authorities (NATA)-accredited laboratory or approved equivalent.

Reference: NPRF Handbook 08-09

Units: Yes/No

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, NPR(E6),

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: EN7

Title: Compliance with environmental regulator – sewerage (yes/no)

SWIM category: Compliance & treatment- sewerage

Definition:

Compliance is where the utility meets the licence conditions prescribed by the environmental regulator. Non-compliance is where the utility does not meet such standards, or has received a financial (greater than $10,000 per incident) or other penalty or had any successful litigation against it by the environmental regulator (or equivalent) or its representative.

Sewerage System: Includes the collection, conveyance and treatment of wastewater and the disposal of treated effluent.

Examples

1. Infringements that may not result in non-compliance include (subject to state regulation); losing a sample or reporting a sample late.

2. Infringements that result in non-compliance may include (subject to state regulation); a spill or discharge contrary to regulatory limits.

The water utility may provide a brief summary to detail any non-compliance. The actual incident may have occurred in a previous financial year to the penalty.

Reference: NPRF Handbook 08-09

Units: Yes/No

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, NPR(E7),

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: EH9

Title: Number of samples tested which comply with the relevant licence standard for BOD

SWIM category: Compliance & treatment- sewerage

Definition:

This is the total number of samples tested which complied with the relevant licence standard for Biological Oxygen Demand (BOD), for the year. This definition refers to the number of SAMPLES, not the total number of TESTS. One sample may have a number of tests performed to measure compliance.

Reference: DLG SWIM 2007

Units: {Count}

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: EH11

This indicator is reported/used for: , DIP,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: EH10

Title: Total number of samples tested for BOD compliance

SWIM category: Compliance & treatment- sewerage

Definition:

This is the total number of samples tested for compliance with the relevant licence standard for Biological Oxygen Demand (BOD), for the year. This definition refers to the number of SAMPLES, not the total number of TESTS. One sample may have a number of tests performed to measure compliance.

Reference: DLG SWIM 2007

Units: {Count}

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: EH11

This indicator is reported/used for: , DIP,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: EH11

Title: % of samples tested which comply with the relevant licence standard for BOD

SWIM category: Compliance & treatment- sewerage

Definition:

This indicator is derived from others as follows:

% samples that complied with BOD requirements [EH11] = Number of samples that complied with

BOD requirements [EH9] / Total number of samples tested for BOD compliance [EH10] x 100%

Reference: qldwater Directorate

Units: %

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: , SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: EH12

Title: Number of samples tested which comply with the relevant licence standard for Suspended Solids

SWIM category: Compliance & treatment- sewerage

Definition:

This is the total number of samples tested which complied with the relevant licence standard for suspended solids, for the year. This definition refers to the number of SAMPLES, not the total number of TESTS. One sample may have a number of tests performed to measure compliance.

Reference: DLG SWIM 2007

Units: {Count}

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: EH14

This indicator is reported/used for: , DIP,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: EH13

Title: Total number of samples tested for Suspended Solids compliance

SWIM category: Compliance & treatment- sewerage

Definition:

This is the total number of samples tested for compliance with the relevant licence standard for suspended solids, for the year. This definition refers to the number of SAMPLES, not the total number of TESTS. One sample may have a number of tests performed to measure compliance.

Reference: DLG SWIM 2007

Units: {Count}

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: EH14

This indicator is reported/used for: , DIP,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: EH14

Title: % of samples tested which comply with the relevant licence standard for Suspended Solids

SWIM category: Compliance & treatment- sewerage

Definition:

This indicator is derived from others as follows:

% samples that complied with SS requirements [EH14] = Number of samples that complied with SS requirements [EH12] / Total number of samples tested for SS compliance [EH13] x 100%

Reference: qldwater Directorate

Units: %

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: , SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: EH15

Title: Number of samples tested which comply with the relevant licence standard for Nitrogen

SWIM category: Compliance & treatment- sewerage

Definition:

This is the total number of samples tested which complied with the relevant licence standard for nitrogen, for the year. This definition refers to the number of SAMPLES, not the total number of TESTS. One sample may have a number of tests performed to measure compliance.

Reference: DLG SWIM 2007

Units: {Count}

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: EH17

This indicator is reported/used for: , DIP,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: EH16

Title: Total number of samples tested for Nitrogen compliance

SWIM category: Compliance & treatment- sewerage

Definition:

This is the total number of samples tested for compliance with the relevant licence standard for nitrogen, for the year. This definition refers to the number of SAMPLES, not the total number of TESTS. One sample may have a number of tests performed to measure compliance.

Reference: DLG SWIM 2007

Units: {Count}

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: EH17

This indicator is reported/used for: , DIP,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: EH17

Title: % of samples tested which comply with the relevant licence standard for Nitrogen

SWIM category: Compliance & treatment- sewerage

Definition:

This indicator is derived from others as follows:

% samples that complied with nitrogen requirements [EH17] = Number of samples that complied with nitrogen requirements [EH15] / Total number of samples tested for nitrogen compliance [EH16] x 100%

Reference: qldwater Directorate

Units: %

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: , SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: EH18

Title: Number of samples tested which comply with the relevant licence standard for Phosphorus

SWIM category: Compliance & treatment- sewerage

Definition:

This is the total number of samples tested which complied with the relevant licence standard for phosphorus, for the year. This definition refers to the number of SAMPLES, not the total number of TESTS. One sample may have a number of tests performed to measure compliance.

Reference: DLG SWIM 2007

Units: {Count}

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: EH20

This indicator is reported/used for: , DIP,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: EH19

Title: Total number of samples tested for Phosphorus compliance

SWIM category: Compliance & treatment- sewerage

Definition:

This is the total number of samples tested for compliance with the relevant licence standard for phosphorus, for the year. This definition refers to the number of SAMPLES, not the total number of TESTS. One sample may have a number of tests performed to measure compliance.

Reference: DLG SWIM 2007

Units: {Count}

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: EH20

This indicator is reported/used for: , DIP,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: EH20

Title: % of samples tested which comply with the relevant licence standard for Phosphorus

SWIM category: Compliance & treatment- sewerage

Definition:

This indicator is derived from others as follows:

% samples that complied with phosphorus requirements [EH20] = Number of samples that complied with phosphorus requirements [EH18] / Total number of samples tested for phosphorus compliance [EH19] x 100%

Reference: qldwater Directorate

Units: %

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: , SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

3.14 Compliance - drinking water

SWIM code: HL1

Title: Water quality compliance guidelines used/ required

SWIM category: Compliance - Drinking Water

Definition:

The water quality guidelines (standard) specified in the licence (or franchise agreement) or required by the health regulatory agency or government against which the water utility measures verification of water quality. In the absence of a formal requirement on the water utility, the requirements of the Australian Drinking Water Guidelines (2004) should be used.

Reference: NPRF Handbook 08-09

Units: NA

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(H1), SAMP: section 4: asset management: water services,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: HL2

Title: Number of zones where microbiological compliance was achieved (i.e.. 23/24)

SWIM category: Compliance - Drinking Water

Definition:

Compliance with the microbiological requirements of the water quality guidelines/standard in each zone of the water supply system. For example, report as 9/11.

Reference: NPRF Handbook 08-09

Units: {Count}

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(H2), SAMP: section 4: asset management: water services,

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes

SWIM code: HL3

Title: % of total population where microbiological compliance was achieved

SWIM category: Compliance - Drinking Water

Definition:

Similar criterion to HL3 above, but based on the percentage of the total population served being within the complying zones—e.g. 95 per cent.

Reference: NPRF Handbook 08-09

Units: %

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(H3), SAMP: section 4: asset management: water services, SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes

SWIM code: HL4

Title: Number of zones where chemical compliance was achieved (i.e. 23/24)

SWIM category: Compliance - Drinking Water

Definition:

Compliance with the chemical requirements of the water quality guidelines/standard in each zone of the water supply system. For example, report as 9/11.

Reference: NPRF Handbook 08-09

Units: {Count}

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(H4), SAMP: section 4: asset management: water services,

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes

SWIM code: HL5

Title: Risk Based Drinking Water Management Plan assessed externally?

SWIM category: Compliance - Drinking Water

Definition:

For interpretation, a water utility may answer 'yes' to this indicator when it has been audited by an external accredited assessor and received certification for ISO 9001, HACCP or assessed against the requirements of the WSAA ADWG A quality assessment by a RABQSA certified auditor, or assessed by an external assessor against the requirements of the ADWG Framework for Management of Drinking Water Quality.

For each of these systems, external third party accredited assessment must have taken place within the past 12 months or as specified by the requirements of the risk management system in place or as specified by the relevant health regulator. The scope of these quality systems must cover the entire scope of water business water quality management systems. If the quality system covers a more limited area, the indicated quality system must be footnoted with a description of the area covered.

NATA certification of laboratory analyses is NOT an approved water quality personnel management system. NATA accreditation applies to laboratory analytical work which comprises a small area of the total water quality management system.

Reference: NPRF Handbook 08-09

Units: Y/N

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(H5), SAMP: section 4: asset management: water services,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: HL6

Title: Risk Based Drinking Water Management Plan

SWIM category: Compliance - Drinking Water

Definition:

Provide a brief description/**Title** of the Risk-based drinking water quality management plan.

Risk-based drinking water quality management plans are risk-based systems and plans in place in the water business demonstrate the water business's commitment to a systematic, thorough and focussed approach to the management of drinking water across the total area of a water business's operations. Risk-based plans are documented systems that require the following types of issues in relation to water quality to be addressed:

- Corporate commitment to water quality.
- Risk management plans including assessment of the drinking water supply system.
- Preventative measures (including evaluation of multiple barriers and critical control points).
- Operational procedures.
- Water quality results verification and assessment.
- Management of incidents and emergencies.
- Community and stakeholder liaison and education.
- System documentation.
- Staff training in water quality.
- Investigative studies and validation of processes.
- External audit of water quality systems.
- Review and continual improvement of system.

For robustness, these systems should be externally assessed.

Risk based plans/systems may include:

- HACCP.
- ISO 9001.
- The WSAA ADWG A quality assessment process.
- ADWG Framework for Management of Drinking Water Quality.

Reference: NPRF Handbook 08-09

Units: NA

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(H6), SAMP: section 4: asset management: water services,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: HL7

Title: Public disclosure of drinking water performance (yes/no)

SWIM category: Compliance - Drinking Water

Definition:

Public disclosure is demonstrated by publishing the utility's water treatment plant performance for the current financial year. Such disclosure could be on a public website or in a report available to the public and should include detailed results for parameters specified in the utility's licence, or as specified by the relevant health regulator, or in the Australian Drinking Water Guidelines (2004). Reported test results should be on the basis of tests carried out by a NATA accredited laboratory or approved equivalent.

Reference: NPRF Handbook 08-09

Units: Y/N

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(H7), SAMP: section 4: asset management: water services,

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: EH1

Title: Number of regulatory sanctions (fines/court convictions) imposed on the authority

SWIM category: Compliance - Drinking Water

Definition:

This is the number of regulatory sanctions (fines/court convictions) imposed on the authority relating to drinking water quality breaches or incidents.

Reference: DLG SWIM 2007, with modification by qldwater Directorate

Units: {Count}

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: , DIP,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: EH3

Title: Number of samples tested which comply with the relevant guideline on E.coli

SWIM category: Compliance - Drinking Water

Definition:

This is the total number of samples tested, for the purpose of compliance, that meet the Utility's Water Quality Standard/Guideline (e.g. the Australian Drinking Water Guidelines - NHMRC 1996) for E.coli, for the year. This definition refers to the number of SAMPLES, not the total number of TESTS. One sample may have a number of tests performed to measure compliance.

Reference: DLG SWIM 2007

Units: {Count}

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: EH5

This indicator is reported/used for: , DIP,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes

SWIM code: EH4

Title: Total number of samples tested for E.coli compliance

SWIM category: Compliance - Drinking Water

Definition:

Total number of samples tested, for the purpose of compliance with the Utility's Water Quality Standard/Guideline (e.g. the Australian Drinking Water guidelines - NHMRC 1996) for E.coli, during the year.

Reference: DLG SWIM 2007

Units: {Count}

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: EH5

This indicator is reported/used for: , DIP,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes

SWIM code: EH5

Title: % of samples tested which comply with the relevant guideline on E.coli

SWIM category: Compliance - Drinking Water

Definition:

This indicator is derived from others as follows:

Percentage samples complying with E. Coli requirements [EH5] = Number of samples tested for E. coli compliance [EH3] / Number of samples tested for E. Coli compliance [EH4]

Reference: qldwater Directorate

Units: %

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: , SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes

SWIM code: EH6

Title: Number of samples tested which comply with the relevant guideline on physical and chemical parameters

SWIM category: Compliance - Drinking Water

Definition:

The total number of samples tested, for the purpose of compliance, that meet the Utility's Water Quality Standard/Guideline (e.g. the Australian Drinking Water Guidelines - NHMRC 1996) on Physical and Chemical parameters (including turbidity, colour and pH), for the year.

This definition refers to the number of SAMPLES, not the total number of TESTS. One sample may have a number of tests performed to measure compliance. For example a failure of one parameter tested on one sample equates to one failed sample. A failure of two or more parameter tested on one sample also equates to one failed sample. A failure of two or more parameters on , say, five samples, equates to five failed samples.

Reference: DLG SWIM 2007, with modification by qldwater Directorate

Units: {Count}

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: EH8

This indicator is reported/used for: , DIP,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes

SWIM code: EH7

Title: Total number of samples tested for physical and chemical compliance

SWIM category: Compliance - Drinking Water

Definition:

Total number of samples tested, for the purpose of compliance with the Utility's Water Quality Standard/Guideline (e.g. the Australian Drinking Water guidelines - NHMRC 1996) for Physical and Chemical parameters, during the year.

Reference: DLG SWIM 2007

Units: {Count}

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: EH8

This indicator is reported/used for: , DIP,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes

SWIM code: EH8

Title: % of samples tested which comply with the relevant guideline on physical and chemical parameters

SWIM category: Compliance - Drinking Water

Definition:

This indicator is derived from others as follows:

Percentage samples complying with physical and chemical requirements [EH8] = Number of samples tested for physical and chemical compliance [EH6] / Number of samples tested for physical and chemical compliance [EH7]

Reference: qldwater Directorate

Units: %

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: , SAMP: section 4: asset management: water services, SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes

3.15 Biosolids

SWIM code: EN8

Title: Percent of biosolids reused

SWIM category: Biosolids & Greenhouse Gas Emissions

Definition:

Biosolids are the stabilised organic solids derived from sewage treatment processes.

Biosolids reuse involves managing biosolids safely and sustainably to beneficially utilise their nutrient, energy, or other values. This may include biosolids beneficially used for agriculture (e.g. fertiliser), soil conditioning, mine rehabilitation, and other applications recognised as reuse. The dry weight of biosolids reused may be greater than the dry weight of biosolids produced if the business is also reusing existing stockpiles.

Total dry weight tonnes of biosolids produced: For mechanical or other sewage treatment processes where the biosolids are available for reuse within a short time frame (e.g. less than one month) the volumes produced for the financial year should be included. For sewage treatment processes where the biosolids are NOT available for reuse within a short time frame (e.g. lagoon processes of 10-30 years) the water utility should account for the accumulation of solids over a financial year. It is suggested that the volume accumulated be calculated using one of the following methodologies:

a) Using appropriate sampling techniques, determine the volume of solids entering the lagoon process (or equivalent) per annum. After accounting for those solids consumed due to biological activity, determine the total accumulation of solids for the financial year.

b) Assess the existing depth of accumulated solids in all lagoons to determine an average annual rate of accumulation. This average figure should then be used.

This indicator is calculated as follows:

Per cent of biosolids reused [EN8]= (Total dry weight tonnes of biosolids reused / Total dry weight tonnes of biosolids produced) x 100%

Reference: NPRF Handbook 08-09

Units: %

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(E8), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

3.16 Greenhouse Gas Emissions

SWIM code: EN14

Title: greenhouse gas emissions (net tonnes CO2-equivalents) - Water (total)

SWIM category: Biosolids & Greenhouse Gas Emissions

Definition:

The greenhouse gas emissions generated by the water utility, directly and indirectly, through all its operations relating to water supply. Conversion factors should be based on those provided by the Department of Climate Change – National Greenhouse Accounts (NGA) Factors specific to the water utility's location. Includes bore fields pipelines and water mains and channels associated with water sources and for the transfer of water from scheme to scheme.

To calculate this indicator:

Greenhouse gas emissions (net tonnes CO2-e): Water (per 1000 properties) [EN9] = Greenhouse gas emissions: net tonnes CO2-e: Water / Number of connected properties (000s)

Note: CO2-e refers to carbon dioxide equivalents, i.e. greenhouse gases expressed as carbon dioxide.

Reference: NPRF Handbook 08-09

Units: t CO2eq

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: EN9

This indicator is reported/used for: , DIP, NPR(IE9),

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: EN9

Title: greenhouse gas emissions (net tonnes CO2-equivalents) - Water (per 1000 properties)

SWIM category: Biosolids & Greenhouse Gas Emissions

Definition:

The greenhouse gas emissions generated by the water utility, directly and indirectly, through all its operations relating to water supply. Conversion factors should be based on those provided by the Department of Climate Change – National Greenhouse Accounts (NGA) Factors specific to the water utility's location. Includes bore fields pipelines and water mains and channels associated with water sources and for the transfer of water from scheme to scheme.

To calculate this indicator:

Greenhouse gas emissions (net tonnes CO2-e): Water (per 1000 properties) [EN9] = Greenhouse gas emissions: net tonnes CO2-e: Water / Number of connected properties (000s)

Note: CO2-e refers to carbon dioxide equivalents, i.e. greenhouse gases expressed as carbon dioxide.

Reference: NPRF Handbook 08-09

Units: t CO2eq / 1000 connections

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: EN12

This indicator is reported/used for: DERM, DIP, NPR(E9), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? derived from EN14 and CS4

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: EN15

Title: greenhouse gas emissions (net tonnes CO2-equivalents) - Sewage (total)

SWIM category: Biosolids & Greenhouse Gas Emissions

Definition:

The greenhouse gas emissions generated by the water utility, directly and indirectly, through all its operations relating to sewerage. Conversion factors should be based on those provided by the Department of Climate Change – National Greenhouse Accounts (NGA) Factors specific to the water utility's location.

To calculate this indicator:

Greenhouse gas emissions (net tonnes CO2-e): Sewerage (per 1000 properties) [EN10] = Greenhouse gas emissions: net tonnes CO2-e: Sewerage / Number of connected properties (000s)

Note: CO2-e refers to carbon dioxide equivalents, i.e. greenhouse gases expressed as carbon dioxide.

Reference: NPRF Handbook 08-09

Units: t CO2eq

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: EN10

This indicator is reported/used for: , DIP, NPR(IE10),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: EN10

Title: greenhouse gas emissions (net tonnes CO2-equivalents) - Sewage (per 1000 properties)

SWIM category: Biosolids & Greenhouse Gas Emissions

Definition:

The greenhouse gas emissions generated by the water utility, directly and indirectly, through all its operations relating to sewerage. Conversion factors should be based on those provided by the Department of Climate Change – National Greenhouse Accounts (NGA) Factors specific to the water utility's location.

To calculate this indicator:

Greenhouse gas emissions (net tonnes CO2-e): Sewerage (per 1000 properties) [EN10] = Greenhouse gas emissions: net tonnes CO2-e: Sewerage / Number of connected properties (000s)

Note: CO2-e refers to carbon dioxide equivalents, i.e. greenhouse gases expressed as carbon dioxide.

Reference: NPRF Handbook 08-09

Units: t CO2eq / 1000 connections

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: EN12

This indicator is reported/used for: DERM, DIP, NPR(E10), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? derived from EN15 and CS8

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: EN16

Title: Net greenhouse gas emissions (net tonnes CO2-equivalents) - Other (total)

SWIM category: Biosolids & Greenhouse Gas Emissions

Definition:

This indicator is a balancing item, which reports the net greenhouse gas emissions generated by the water utility, directly and indirectly relating to other activities such as transport (vehicles and air travel) and office buildings. This other category should also include all sequestration activities (Note: reporting a negative figure is appropriate in the case that the amount of carbon sequestered is greater than the carbon emissions from transport and office buildings). Conversion factors should be based on those provided by the Department of Climate Change – National Greenhouse Accounts (NGA) Factors specific to the water utility's location.

Sequestration = the amount of carbon sequestered per unit time (e.g. 12 months), i.e. a measure of the increase in the amount of carbon removed from the atmosphere over the period. Generally, sequestration is achieved through establishing tree plantations; however it can also be accomplished by other means, including chemical treatment and deep ocean air injection.

Sequestered carbon = (Carbon bank @ t1+x) – (Carbon bank @ tx); Where t = time.

All carbon values are in (CO2-e) units.

Estimating carbon sequestration: Carbon accounting for sinks is based on the stock exchange approach. To determine carbon sequestration, the change in carbon stocks over a period of time is calculated using the formula DCi = Ci-1; Where Ci = carbon stocks in year i; DCi = change in carbon stocks in year i; Ci-1 = carbon stocks in the year before year i. Three methods of estimating carbon to different levels of accuracy and cost exist, as specified in the Department of Climate Change – National Greenhouse Accounts (NGA) Factors at http://www.climatechange.gov.au/workbook/pubs/workbook-feb2008.pdf. The method used should be specified.

Note:

Electricity consumption records are required for this indicator. Electricity bills generally cover a period of time anywhere between one and six months. It is recommended that water utilities pro-rate the electricity usage in order to obtain a figure for the relevant financial year. If there is a need to extrapolate, the water utility should account for seasonal variations in electricity use. Ideally where prorating is used, a suitable footnote will be included. In the event that prorating cannot be done, the utility can provide data based on the 12 months period that most closely aligns with the reporting year. This data should also be provided with a footnote.

The value reported should be per 1000 water connected properties.

Reference: NPRF Handbook 08-09

Units: t CO2eq

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: EN11

This indicator is reported/used for: , DIP, NPR(IE11),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: EN11

Title: Net greenhouse gas emissions (net tonnes CO2-equivalents) - Other (per 1000 properties)

SWIM category: Biosolids & Greenhouse Gas Emissions

Definition:

This indicator is a balancing item, which reports the net greenhouse gas emissions generated by the water utility, directly and indirectly relating to other activities such as transport (vehicles and air travel) and office buildings. This other category should also include all sequestration activities (Note: reporting a negative figure is appropriate in the case that the amount of carbon sequestered is greater than the carbon emissions from transport and office buildings). Conversion factors should be based on those provided by the Department of Climate Change – National Greenhouse Accounts (NGA) Factors specific to the water utility's location.

Sequestration = the amount of carbon sequestered per unit time (e.g. 12 months), i.e. a measure of the increase in the amount of carbon removed from the atmosphere over the period. Generally, sequestration is achieved through establishing tree plantations; however it can also be accomplished by other means, including chemical treatment and deep ocean air injection.

Sequestered carbon = (Carbon bank @ t1+x) – (Carbon bank @ tx); Where t = time.

All carbon values are in (CO2-e) units.

Estimating carbon sequestration: Carbon accounting for sinks is based on the stock exchange approach. To determine carbon sequestration, the change in carbon stocks over a period of time is calculated using the formula DCi = Ci-1; Where Ci = carbon stocks in year i; DCi = change in carbon stocks in year i; Ci-1 = carbon stocks in the year before year i. Three methods of estimating carbon to different levels of accuracy and cost exist, as specified in the Department of Climate Change – National Greenhouse Accounts (NGA) Factors at http://www.climatechange.gov.au/workbook/pubs/workbook-feb2008.pdf. The method used should be specified.

Note:

Electricity consumption records are required for this indicator. Electricity bills generally cover a period of time anywhere between one and six months. It is recommended that water utilities pro-rate the electricity usage in order to obtain a figure for the relevant financial year. If there is a need to extrapolate, the water utility should account for seasonal variations in electricity use. Ideally where prorating is used, a suitable footnote will be included. In the event that prorating cannot be done, the utility can provide data based on the 12 months period that most closely aligns with the reporting year. This data should also be provided with a footnote.

The value reported should be per 1000 water connected properties.

Reference: NPRF Handbook 08-09

Units: t CO2eq / 1000 connections

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: EN12

This indicator is reported/used for: DERM, DIP, NPR(E11), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? derived from EN16 and CS4 or CS8

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: EN12

Title: Total Net greenhouse gas emissions (net tonnes - CO2-equivalents),(per 1000 properties)

SWIM category: Biosolids & Greenhouse Gas Emissions

Definition:

This indicator is derived from others as follows:

Total Net greenhouse gas emissions: net tonnes CO2-e (per 1000 properties) [EN12]] = Greenhouse gas emissions net tonnes CO2-e: Water (per 1000 properties) [EN9] + Greenhouse gas emissions net tonnes CO2-e: Sewerage (per 1000 properties) [EN10] + Net greenhouse gas emissions net tonnes CO2-e: Other (per 1000 properties) [EN11]

Reference: NPRF Handbook 08-09

Units: t CO2eq / 1000 connections

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(E12), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? derived from EN9, EN10 and EN11

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

3.17 Revenue, costs and grants

SWIM code: FN1

Title: Total revenue - water

SWIM category: Revenue, Costs & Grants

Definition:

The water utility should report total revenue. Revenue will include, but may not be limited to, the following:

- Revenue from pay for use and base rate charges for provision of water (including recycled water) and sewerage services to residential and non-residential customers (AASB 118).

- Special levies.

- All contributed cash and assets (otherwise known as gifted assets, developer charges or headworks contributions).

- Receipts from governments for specific agreed services (e.g. CSOs).

- Other revenue from operations which would otherwise be included.

- Revenue from bulk water sales (for those businesses that supply bulk water).

- Sewerage (including trade waste).

Revenues, where possible or material (in assessing materiality, refer to Australian Accounting Standard AASB1031 - Materiality), should EXCLUDE the following:

- Funds received for specific capital works from governments or other parties.

- Equity contributions from governments.

- Investment activities.

- Non core utility activities (e.g. consulting, agriculture, property leases).

Reference: NPRF Handbook 08-09

Units: $,000

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: FN5

This indicator is reported/used for: DERM, DIP, NPR(F1),

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: FN2

Title: Total revenue - sewerage

SWIM category: Revenue, Costs & Grants

Definition:

The water utility should report total revenue. Revenue will include, but may not be limited to, the following:

- Revenue from pay for use and base rate charges for provision of water (including recycled water) and sewerage services to residential and non-residential customers (AASB 118).

- Special levies.

- All contributed cash and assets (otherwise known as gifted assets, developer charges or headworks contributions).

- Receipts from governments for specific agreed services (e.g. CSOs).

- Other revenue from operations which would otherwise be included.

- Revenue from bulk water sales (for those businesses that supply bulk water).

- Sewerage (including trade waste).

Revenues, where possible or material (in assessing materiality, refer to Australian Accounting Standard AASB1031 - Materiality), should EXCLUDE the following:

- Funds received for specific capital works from governments or other parties.

- Equity contributions from governments.

- Investment activities.

- Non core utility activities (e.g. consulting, agriculture, property leases).

Reference: NPRF Handbook 08-09

Units: $,000

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: FN6

This indicator is reported/used for: DERM, DIP, NPR(F2),

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: FN3

Title: Total revenue for whole of utility

SWIM category: Revenue, Costs & Grants

Definition:

The water utility should report total revenue. Revenue will include, but may not be limited to, the following:

- Revenue from pay for use and base rate charges for provision of water (including recycled water) and sewerage services to residential and non-residential customers (AASB 118).

- Special levies.

- All contributed cash and assets (otherwise known as gifted assets, developer charges or headworks contributions).

- Receipts from governments for specific agreed services (e.g. CSOs).

- Other revenue from operations which would otherwise be included.

- Revenue from bulk water sales (for those businesses that supply bulk water).

- Sewerage (including trade waste).

Revenues, where possible or material (in assessing materiality, refer to Australian Accounting Standard AASB1031 - Materiality), should EXCLUDE the following:

- Funds received for specific capital works from governments or other parties.

- Equity contributions from governments.

- Investment activities.

- Non core utility activities (e.g. consulting, agriculture, property leases).

Reference: NPRF Handbook 08-09

Units: $,000

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: FN7, FN8

This indicator is reported/used for: DERM, DIP, NPR(F3),

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: FN4

Title: Residential revenue from usage charges – water (%)

SWIM category: Revenue, Costs & Grants

Definition:

The water utility should report the residential revenue from water usage charges as a percentage of the residential revenue from water usage charges, access charges and any environmental levies for water supply.

Note:

1. Spikes in revenues caused by large asset sales or by building booms (i.e. unusual amounts of revenues from developer charges) or falls in revenues due to water restrictions may be explained by the use of NPR footnotes.

2. Previously any abnormal revenue, as described by the relevant accounting standard, was overtly excluded under AASB1031. Given the recent change to AASB1031, exclusion of these revenues is problematic. For Nor reporting, if they are excluded, then this should be reflected through an NPR footnote.

3. Interest charged on late payments from customers is included.

Calculations:

Residential Revenue from water usage charges (%) = (Residential revenue from water usage charges x 100) / (residential revenue from water usage charges + residential revenue from access charges + environmental levies for water supply)

Reference: NPRF Handbook 08-09

Units: %

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(F4), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: FN5

Title: Revenue per property for water supply services ($/property)

SWIM category: Revenue, Costs & Grants

Definition:

This indicator is derived from others as follows:

[FN5] Revenue per property = Total revenue - water [FN1] / number of water connected properties [CS4]

Reference: NPRF Handbook 08-09

Units: $/property

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(F5), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: FN6

Title: Revenue per property for sewerage services ($/property)

SWIM category: Revenue, Costs & Grants

Definition:

This indicator is derived from others as follows:

[FN6] Revenue per property = Total revenue - sewerage [FN2] / number of sewerage connected properties [CS8]

Reference: NPRF Handbook 08-09

Units: $/property

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(F6), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: FN7

Title: Income per property for utility ($/property)

SWIM category: Revenue, Costs & Grants

Definition:

Calculations:

Income per property for utility ($/property) [FN7] = Total income for utility / total connected properties(water supply or sewerage services)

(Note: Use the greater of water or sewerage properties for this indicator)

Reference: NPRF Handbook 08-09

Units: $/property

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(F7), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: FN9

Title: Nominal written down replacement cost of fixed water supply assets

SWIM category: Revenue, Costs & Grants

Definition:

This indicator provides information on the value of the utility's water assets. The written down replacement cost represents the value of the fixed assets of the utility to deliver services, and hence derive income.

Written down replacement cost of fixed assets (WDRC) is the current cost of replacing the service potential of fixed water and sewerage business assets based on current technology. The WDRC may not be the same value as reported in the utility's annual financial statements.

It is recognised that not all water utilities will be able to report on the basis of written down replacement costs for 2006-07 and 2007-08, in which case the utility should note the approach used to value assets in the comments field.

Reference: NPRF Handbook 08-09

Units: $,000

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: FN28

This indicator is reported/used for: DERM, DIP, NPR(F9),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: FN10

Title: Nominal written down replacement cost of fixed sewerage assets

SWIM category: Revenue, Costs & Grants

Definition:

This indicator provides information on the value of the utility's sewerage assets. The written down replacement cost represents the value of the fixed assets of the utility to deliver services, and hence derive income.

Written down replacement cost of fixed assets (WDRC) is the current cost of replacing the service

potential of fixed water and sewerage business assets based on current technology. The WDRC may not be the same value as reported in the utility's annual financial statements.

Reference: NPRF Handbook 08-09

Units: $,000

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: FN28

This indicator is reported/used for: DERM, DIP, NPR(F10),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: FN28

Title: Nominal written down replacement cost of combined water and sewerage fixed assets

SWIM category: Revenue, Costs & Grants

Definition:

This indicator is derived from others as follows:

Nominal WDRC water and sewerage [FN28] = Nominal WDRC water assets [FN9] + Nominal WDRC sewerage assets [FN10]

Reference: NPRF Handbook 08-09

Units: $,000

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, SAMP: Section 2: Overview of services,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: FN31

Title: Asset valuation methodology

SWIM category: Revenue, Costs & Grants

Definition:

It is recognised that not all water utilities will be able to report on the basis of written down replacement costs for 2006-07 and 2007-08, in which case the utility should note the approach used to value assets (at indicators FN9 and FN10)

Reference: NPRF Handbook 08-09

Units: NA

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP,

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: FN32

Title: Operating cost - water (000s)

SWIM category: Revenue, Costs & Grants

Definition:

UNDER REVIEW BY NPR COMMITTEE

current **Definition:**

Operating costs (operation, maintenance and administration – OMA) should, where possible or material (in assessing materiality refer to Australian Accounting Standard AASB1031– Materiality), include the following:

- Water resource access charge or resource rent tax (water supply only).

- Purchases of raw, treated or recycled water (water supply only).

- Charges for bulk treatment/transfer of sewerage (sewerage only).

- Salaries and wages.

- Overheads on salaries and wages.

- Materials/chemicals/energy.

- Contracts.

- Accommodation.

- All other operating costs that would normally be reported.

- Items expensed from work in progress (capitalized expense items) and pensioner remission expenses (CSOs). (CSOs are likely to have an equivalent inclusion in revenue).

- Competitive neutrality (CN) adjustments, they may include but not be limited to, land tax, debits tax, stamp duties and council rates.

Indirect costs should be apportioned to water and sewerage services

Interest should be excluded from operating costs as it is reported separately.

Operating costs should EXCLUDE the following: (see note below)

- All non-core business operating costs.

- Depreciation.

- Any write-downs of assets to recoverable amounts.

- Write-offs retired or scrapped assets.

- The written down value of assets sold.

Note: These write-offs could be equated to accelerated depreciation, and therefore should be included within current cost depreciation. This will then be included as part of the calculation of total costs for the relevant period.

When assets are sold, their book value should be included in current cost depreciation (as it may be accelerated depreciation) and selling expenses, whilst expected to be immaterial, should be included in operating costs.

In apportioning indirect costs, the business should apply a consistent methodology for all reporting years.

For Treatment of Built, Owned, Operated, and Transferred (BOOT) schemes: refer to NPRF Handbook

Reference: NPRF Handbook 08-09

Units: $,000

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: FN11, FN13

This indicator is reported/used for: DERM, DIP, NPR(IF11),

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: FN11

Title: Operating cost - water ($/property)

SWIM category: Revenue, Costs & Grants

Definition:

This indicator is derived from others as follows:

[FN11] Operating cost per property: water = Total operating cost: water [FN32] / number of water connected properties [CS4]

Reference: NPRF Handbook 08-09

Units: $/Water connections

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(F11), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? derived from FN32 and CS4

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: water schemes, nonpotable water schemes

SWIM code: FN33

Title: Operating cost - sewerage (000s)

SWIM category: Revenue, Costs & Grants

Definition:

UNDER REVIEW BY NPR COMMITTEE

current **Definition:**

Operating costs (operation, maintenance and administration – OMA) should, where possible or material (in assessing materiality refer to Australian Accounting Standard AASB1031– Materiality), include the following:

- Water resource access charge or resource rent tax (water supply only).

- Purchases of raw, treated or recycled water (water supply only).

- Charges for bulk treatment/transfer of sewerage (sewerage only).

- Salaries and wages.

- Overheads on salaries and wages.

- Materials/chemicals/energy.

- Contracts.

- Accommodation.

- All other operating costs that would normally be reported.

- Items expensed from work in progress (capitalized expense items) and pensioner remission expenses (CSOs). (CSOs are likely to have an equivalent inclusion in revenue).

- Competitive neutrality (CN) adjustments, they may include but not be limited to, land tax, debits tax, stamp duties and council rates.

Indirect costs should be apportioned to water and sewerage services

Interest should be excluded from operating costs as it is reported separately.

Operating costs should EXCLUDE the following: (see note below)

- All non-core business operating costs.

- Depreciation.

- Any write-downs of assets to recoverable amounts.

- Write-offs retired or scrapped assets.

- The written down value of assets sold.

Note: These write-offs could be equated to accelerated depreciation, and therefore should be included within current cost depreciation. This will then be included as part of the calculation of total costs for the relevant period.

When assets are sold, their book value should be included in current cost depreciation (as it may be accelerated depreciation) and selling expenses, whilst expected to be immaterial, should be included in operating costs.

In apportioning indirect costs, the business should apply a consistent methodology for all reporting years.

For Treatment of Built, Owned, Operated, and Transferred (BOOT) schemes: refer to NPRF Handbook

Reference: NPRF Handbook 08-09

Units: $,000

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: FN12, FN13

This indicator is reported/used for: DERM, DIP, NPR(IF12),

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: FN12

Title: Operating cost – sewerage ($/property)

SWIM category: Revenue, Costs & Grants

Definition:

This indicator is derived from others as follows:

[FN12] Operating cost per property: sewerage = Total operating cost: sewerage [FN33] / number of sewerage connected properties [CS8]

Reference: NPRF Handbook 08-09

Units: $/Sewer connections

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(F12), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? derived from FN33 and CS8

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: sewerage schemes

SWIM code: FN13

Title: Combined operating cost water and sewerage

SWIM category: Revenue, Costs & Grants

Definition:

This indicator is derived from others as follows:

[FN13] Operating cost per property: sewerage = Operating cost: water per property [FN11] + Operating cost: sewerage per property [FN12]

Reference: NPRF Handbook 08-09

Units: $,000

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(F13),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: FN14

Title: Total water supply capital expenditure

SWIM category: Revenue, Costs & Grants

Definition:

Water supply capital expenditure is the actual capital expenditure on water supply for the reporting year. This should include all capital expenditure for:

- New works.

- Renewals or replacements.

- Other expenditure that would otherwise be referred to as capital.

- Recycling water assets.

Notes

1. Gifted/development assets not to be included in capital expenditure.

2. Capital expenditure is recognised in the year that it is incurred.

This indicator is calculated as follows:

Total real water supply capital expenditure ($,000s) [FN14] = (Total nominal water supply capital expenditure x CPI inflator) / 1000

Reference: NPRF handbook 08-09

Units: $,000

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: FN16, FN36

This indicator is reported/used for: DERM, DIP, NPR(F14),

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: FN15

Title: Total sewerage capital expenditure

SWIM category: Revenue, Costs & Grants

Definition:

Sewerage capital expenditure is the actual capital expenditure on sewerage for the reporting year. This should include all capital expenditure for:

- New works.

- Renewals or replacements.

- Other expenditure that would otherwise be referred to as capital.

Notes

1. Gifted/development assets not to be included in capital expenditure.

2. Capital expenditure is recognised in the year that it is incurred.

This indicator is calculated as follows:

Total real sewerage capital expenditure ($,000s) [FN15] = (Total nominal sewerage capital expenditure x CPI inflator) / 1000

Reference: NPRF handbook 08-09

Units: $,000

Comparison to SWIM definition 07-08: Same

This indicator is used to derive the following indicators: FN16, FN35

This indicator is reported/used for: DERM, DIP, NPR(F15),

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: FN16

Title: Total CapEx for water and sewerage

SWIM category: Revenue, Costs & Grants

Definition:

Total capital expenditure for water and sewerage services is the actual capital expenditure on water/sewerage supply for the reporting year. This should include all capital expenditure for:

- New works.

- Renewals or replacements.

- Other expenditure that would otherwise be referred to as capital.

- Recycling water assets

Notes

1. Gifted/development assets not to be included in capital expenditure.

2. Capital expenditure is recognised in the year that it is incurred.

This indicator is calculated as follows:

Total real water supply and sewerage capital expenditure ($,000s) [FN16] = (Total nominal water supply and sewerage capital expenditure x CPI inflator) / 1000

Reference: NPRF handbook 08-09

Units: $,000

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(F16),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: FN34

Title: water supply capital expenditure per property

SWIM category: Revenue, Costs & Grants

Definition:

Water supply capital expenditure is the actual capital expenditure on water supply for the reporting year. This should include all capital expenditure for:

- New works.

- Renewals or replacements.

- Other expenditure that would otherwise be referred to as capital.

- Recycling water assets.

Notes

1. Gifted/development assets not to be included in capital expenditure.

2. Capital expenditure is recognised in the year that it is incurred.

This indicator is calculated as follows:

Total real water supply capital expenditure ($,000s) [FN14] = (Total nominal water supply capital expenditure x CPI inflator) / 1000

This indicator is calculated as follows:

Water supply capital expenditure ($/property) [FN34] = Total water supply capital expenditure [FN14] / Number water connected properties [CS4]

Reference: NPRF handbook 08-09

Units: $/property

Comparison to SWIM definition 07-08: new to SWIM

This indicator is used to derive the following indicators: none, is reported as is

This indicator is reported/used for: DERM, DIP, NPR(F28),

If used in NPR reporting, is this an auditable indicator? Yes (derived)

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: FN55

Title: Sewerage capital expenditure per property

SWIM category: Revenue, Costs & Grants

Definition:

Sewerage capital expenditure is the actual capital expenditure on sewerage for the reporting year. This should include all capital expenditure for:

- New works.

- Renewals or replacements.

- Other expenditure that would otherwise be referred to as capital.

Notes

1. Gifted/development assets not to be included in capital expenditure.

2. Capital expenditure is recognised in the year that it is incurred.

This indicator is calculated as follows:

Sewerage capital expenditure ($/property) [FN35] = Total sewerage capital expenditure [FN15] / Number sewerage connected properties [CS8]

Reference: NPRF handbook 08-09

Units: $/property

Comparison to SWIM definition 07-08: new

This indicator is used to derive the following indicators: none, reported as is

This indicator is reported/used for: DERM, DIP, NPR(F29),

If used in NPR reporting, is this an auditable indicator? Yes (derived)

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: FN26

Title: Capital works grants - water

SWIM category: Revenue, Costs & Grants

Definition:

Capital works grants are funds received within the reported financial year from governments for specific capital works.

Examples

(1) E.g. a grant of $1M for a backlog water supply scheme for a town without a reticulated water supply IS a capital works grant.

(2) E.g. a grant for construction of a new weir, which will not be owned by the water utility IS NOT a capital works grant.

Reference: NPRF handbook 08-09

Units: $,000

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(F26),

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: FN27

Title: Capital works grants- sewerage

SWIM category: Revenue, Costs & Grants

Definition:

Capital works grants are funds received within the reported financial year from governments for specific capital works.

Examples

(1) E.g. a grant of $1M for a backlog water supply scheme for a town without a reticulated water supply IS a capital works grant.

(2) E.g. a grant for construction of a new weir, which will not be owned by the water utility IS NOT a capital works grant.

Reference: NPRF handbook 08-09

Units: $,000

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(F27),

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

3.18 Financial

SWIM code: FN25

Title: Community Service Obligations

SWIM category: Financial

Definition:

A community service obligation (CSO) payment is a subsidy provided by government to allow for the provision of a good and/or service at less than total cost, e.g. small regional community provided with water at less than total cost. A CSO must be:

1. A non-commercial product or service. It should be clearly established that a CSO relates to the provision of non-commercial products or services, that is, products and services whose provision is not in the commercial interests of a commercial business entity. That is, to qualify as CSOs, activities must be ones that would otherwise not be undertaken, or would be priced differently, by commercial entities (based on the entity earning normal commercial profit levels and the products or services being delivered on a cost-effective basis). In some instances, the delivery of products and services may be commercially viable at levels below those desired by the Government. Therefore, such services will contain both commercial and non-commercial elements. Clearly, CSOs should only relate to the non-commercial element of the product or service.

2. Purchased by the Government on behalf of the Community. To qualify as a CSO, a product or service needs to be clearly purchased by the Government for delivery to the community on its behalf to achieve a specific social or economic objective that has been established by the Government.

3. Purchased from a commercial business entity. To qualify as a CSO, a product or service must be purchased by the government from an appropriate commercial business entity.

On the basis of the criteria outlined above, the following four categories of activities would qualify as CSO payments:

- payment by government for delivery of services to final consumers or industry at uniform prices, regardless of variations in the cost of supply (e.g. uniform water tariff)

- payment by government for delivery, at no charge or below cost, of services or service levels which would not be provided on purely commercial grounds (e.g. remote community water services)

- payment by government towards the cost of price concessions to particular groups of customers (e.g. various pensioner/senior concessions), and

- payment by government towards the cost of purchase of inputs at levels or types that differ from purely commercial levels in order to achieve other objectives (e.g. employing additional apprentices).

Notes:

1. The data for this indicator should reflect the figures for the water and sewerage businesses of the WHOLE water utility. This is done in recognition of the inappropriateness of apportioning CSO payments across the business products. Consistent with other references in the Handbook WHOLE water utility is defined as the particular scheme or geographic area being reported. State-wide water utilities should also report the CSO for their state-wide operations in a footnote.

2. Reductions in charges for services to any consumers, including pensioners and seniors which are provided without payment for the reduction by government would be a cross subsidy and not a CSO.

Reference: NPRF handbook 08-09

Units: $,000

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: FN8

This indicator is reported/used for: DERM, DIP, NPR(F25),

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: FN8

Title: Revenue from Community Service Obligations (%)

SWIM category: Revenue, Costs & Grants

Definition:

The purpose is to report the proportion of the utility's revenue that is obtained from Community Service Obligations (CSOs).

Calculation: The revenue from CSOs divided by the total income for the utility (including CSOs).

This indicator is calculated from others as follows:

Revenue from Community Service Obligations (%) [FN8] = Community Service Obligations [FN25] / Total revenue [FN3] * 100%

Definition for Community Service Obligations (CSO): refer to page 88 of the NPRF Handbook 08-09

Reference: NPRF handbook 08-09

Units: %

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(F8), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? derived from FN25 and FN3

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: FN17

Title: Economic real rate of return for water supply (%)

SWIM category: Financial

Definition:

Revenue from water business operations less operating expenses (operation, maintenance and administration expenses (OMA) + current cost depreciation) for the water business divided by written down replacement cost (WDRC) of operational assets for the water business.

Notes

1. Revenue from operations includes all developer cash and asset contributions for the water and sewerage business.

2. Revenue from operations excludes interest income, grants for acquisition of assets and gain/loss on disposal of assets for the water and sewerage business.

3. Current cost depreciation: Expense should be based on the change in the WDRC of the fixed assets over the reporting period.

4. Written down replacement cost of fixed assets (WDRC): The current cost of replacing the service potential of fixed water and sewerage business assets based on current technology. The WDRC may not be the same value as reported in the utility's annual financial statements.

5. It is recognised that not all urban water utilities will be able to report on the basis of WDRC, in which case the utility should note the approach used to value assets. It should be noted that the NPR roundtable group and WSAA are seeking consistency in the approach to asset valuation in the future.

Reference: NPRF handbook 08-09

Units: %

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(F17),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: FN18

Title: Economic real rate of return – sewerage (%)

SWIM category: Financial

Definition:

Revenue from sewerage business operations less operating expenses (operation, maintenance and administration expenses (OMA) + current cost depreciation) for the sewerage business divided by written down replacement cost (WDRC) of operational assets for the water business.

Notes

1. Revenue from operations includes all developer cash and asset contributions for the water and sewerage business.

2. Revenue from operations excludes interest income, grants for acquisition of assets and gain/loss on disposal of assets for the water and sewerage business.

3. Current cost depreciation: Expense should be based on the change in the WDRC of the fixed assets over the reporting period.

4. Written down replacement cost of fixed assets (WDRC): The current cost of replacing the service potential of fixed water and sewerage business assets based on current technology. The WDRC may not be the same value as reported in the utility's annual financial statements.

5. It is recognised that not all urban water utilities will be able to report on the basis of WDRC, in which case the utility should note the approach used to value assets. It should be noted that the NPR roundtable group and WSAA are seeking consistency in the approach to asset valuation in the future.

Reference: NPRF handbook 08-09

Units: %

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(F18),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: FN19

Title: Economic real rate of return – water and sewerage (%)

SWIM category: Financial

Definition:

Revenue from water and sewerage business operations less operating expenses (OMA + current cost depreciation) for the water and sewerage business divided by written down replacement cost (WDRC) of operational assets for the water and sewerage business.

Notes

1. Revenue from operations includes all developer cash and asset contributions for the water and sewerage business.

2. Revenue from operations excludes interest income, grants for acquisition of assets and gain/loss on disposal of assets for the water and sewerage business.

3. Current cost depreciation: Expense should be based on the change in the WDRC of the fixed assets over the reporting period.

4. Written down replacement cost of fixed assets (WDRC): The current cost of replacing the service potential of fixed water and sewerage business assets based on current technology. The WDRC may not be the same value as reported in the utility's annual financial statements.

5. It is recognised that not all urban water utilities will be able to report on the basis of WDRC, in which case the utility should note the approach used to value assets. It should be noted that the NPR roundtable group and WSAA are seeking consistency in the approach to asset valuation in the future.

Reference: NPRF handbook 08-09

Units: %

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(F19),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: FN20

Title: Dividend ($000s)

SWIM category: Financial

Definition:

This amount relates to dividends paid, payable or proposed to be paid in relation to current year profit for the water and sewerage business for the WHOLE water utility. This refers to the interim dividend paid during the financial year and the final dividend for the current financial year which is proposed to be paid in relation to the current year profit.

Where appropriate, this will include non-metropolitan businesses

Notes:

1. Historical data for Australian utilities will be reported in real terms using the 8-state average CPI for the reporting year. Only nominal figures are to be entered into the NPR and SWIM database. Calculations of real figures are completed automatically in the database. The headline CPI for New Zealand for the reporting year will be used for those reporting utilities.

2. Data for this indicator should reflect the figures for the water and sewerage business for the WHOLE water utility. This is done in recognition of the inappropriateness of apportioning dividend payments across the business products. Accordingly, net profit after tax used in determining the dividend payout ratio should also be that for the WHOLE water utility.

3. Declared dividend refers to the interim dividend paid during the financial year and the final dividend for the current financial year which is proposed to be paid in relation to the current year profit.

4. Dividend payable refers to monies paid in the year.

5. State-wide water utilities should report the total dividend for their state-wide operations

Reference: NPRF handbook 08-09

Units: $,000

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: FN21

This indicator is reported/used for: DERM, DIP, NPR(F20),

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: FN21

Title: Dividend payout ratio (%)

SWIM category: Financial

Definition:

This is calculated as:

Dividend payout ratio = (Dividend paid or payable or proposed) / (Net profit after tax) x 100

Reference: NPRF handbook 08-09

Units: %

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(F21),

If used in NPR reporting, is this an auditable indicator? derived from FN20 and FN24

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: FN22

Title: Net Debt to equity %

SWIM category: Financial

Definition:

Calculation:

Net debt to equity = Net debt x 100% / (Total Assets - Total Liabilities)

Note: The data for this indicator should reflect the figures for the WHOLE water utility. This is done in recognition of the inappropriateness of apportioning debt across the business products. Pre-payment of debts are included in the investment component of the debt calculation.

Definitions:

Debt includes:

• interest bearing repayable borrowings

• non-interest bearing repayable borrowings

• interest bearing non-repayable borrowings

• redeemable preference shares, and

• finance leases.

Debt excludes creditors and provisions, but offsetting assets, such as contributions to sinking funds, are not deducted.

Net debt: The net debt for the water and sewerage businesses of the WHOLE water utility for the reporting year.

Net debt = (long term borrowings + short term borrowings) – (cash + investments)

Equity: is the total assets less total liabilities for the WHOLE water utility.

Reference: NPRF handbook 08-09

Units: %

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(F22),

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: FN23

Title: Interest cover

SWIM category: Financial

Definition:

Interest cover: The earnings before interest and tax (EBIT) divided by net interest expense for the WHOLE water utility. The interest cover is nil for a loss-making utility. Similarly, if net interest expense is zero (i.e.. no interest expense or interest income is greater than interest expense) for a profit-making utility, then the interest cover is infinite but should be reported as '>100'.

See pg 85 of NPR Handbook 08-=09 for more detailed discussion of terms used in calculating this indicator

Reference: NPRF handbook 08-09

Units: %

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(F23),

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: FN24

Title: Net profit after tax ($000s)

SWIM category: Financial

Definition:

Report the net profit after tax disclosed in the utility's annual financial statements.

Note:

Historical data for Australian utilities will be reported in real terms using the 8-state average CPI for the reporting year. Only nominal figures are to be entered into the SWIM or NPR database. Calculations of real figures are completed automatically in the database.

The headline CPI for New Zealand for the reporting year will be used for those reporting utilities.

Reference: NPRF handbook 08-09

Units: $,000

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: FN21, FN26

This indicator is reported/used for: DERM, DIP, NPR(F24),

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: FN36

Title: Net profit after tax ratio

SWIM category: Financial

Definition:

Report the net profit after tax ratio.

This indicator is calculated as follows:

NPAT ratio [FN36] = Net profit after tax [FN24] / [FN3]

Note:

Historical data for Australian utilities will be reported in real terms using the 8-state average CPI for the reporting year. Only nominal figures are to be entered into the SWIM or NPR database. Calculations of real figures are completed automatically in the database.

The headline CPI for New Zealand for the reporting year will be used for those reporting utilities.

Reference: NPRF handbook 08-09

Units: $,000

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: FN21

This indicator is reported/used for: DERM, DIP, NPR(F24),

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

3.19 Pricing: water

SWIM code: PR1

Title: Tariff Structure (description)

SWIM category: Water & Sewage Pricing

Definition:

This indicator provides a brief description of the tariff structures for residential customers. Examples include inclining tiered tariff, two-part tariff: fixed and variable.

Reference: NPRF handbook 08-09

Units: NA

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(P1),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: PR2

Title: Free Water Allowance (kL) - water

SWIM category: Water & Sewage Pricing

Definition:

Volume of water provided free, per property

reported as: kL per property

Reference: NPRF handbook 08-09, qldwater

Units: kL

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(P1.1),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: PR3

Title: Fixed Charge - water: description of basis and value

SWIM category: Water & Sewage Pricing

Definition:

The fixed amount the business levies on a residential property per year. This is the component of each residential property's bill that does not vary with the amount of water used.

The basis for the fixed charge is to be provided (e.g. percentage of property value, meter sizes) and value of the fixed charge.

Reference: NPRF handbook 08-09

Units: NA

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(P1.2),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: PR6

Title: Usage Charge 1st Step: kL to kL, and value of charge

SWIM category: Water & Sewage Pricing

Definition:

Description (in kL) of the step and price per unit (kL)

Reference: NPRF handbook 08-09

Units: kL

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(P1.3),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: PR8

Title: Usage Charge 2nd Step: kL to kL, and value of charge

SWIM category: Water & Sewage Pricing

Definition:

Description (in kL) of the step and price per unit (kL)

Reference: NPRF handbook 08-09

Units: kL

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(P1.4),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: PR10

Title: Usage Charge 3rd Step: kL to kL, and value of charge

SWIM category: Water & Sewage Pricing

Definition:

Description (in kL) of the step and price per unit (kL)

Reference: NPRF handbook 08-09

Units: kL

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(P1.5),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: PR12

Title: Usage Charge 4th Step: kL to kL, and value of charge

SWIM category: Water & Sewage Pricing

Definition:

Description (in kL) of the step and price per unit (kL)

Reference: NPRF handbook 08-09

Units: kL

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(P1.6),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: PR14

Title: Usage Charge 5th Step: kL to kL, and value of charge

SWIM category: Water & Sewage Pricing

Definition:

Description (in kL) of the step and price per unit (kL)

Reference: NPRF handbook 08-09

Units: kL

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(P1.7),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: PR16

Title: Usage Charge 6th Step: kL to kL, and value of charge

SWIM category: Water & Sewage Pricing

Definition:

Description (in kL) of the step and price per unit (kL)

Reference: NPRF handbook 08-09

Units: kL

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(P1.8),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: PR18

Title: Usage Charge 7th Step: kL to kL, and value of charge

SWIM category: Water & Sewage Pricing

Definition:

Description (in kL) of the step and price per unit (kL)

Reference: NPRF handbook 08-09

Units: kL

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(P1.9),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: PR20

Title: Usage Charge 8th Step: kL to kL, and value of charge

SWIM category: Water & Sewage Pricing

Definition:

Description (in kL) of the step and price per unit (kL)

Reference: NPRF handbook 08-09

Units: kL

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(P1.10),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: PR22

Title: Usage Charge 9th Step: kL to kL, and value of charge

SWIM category: Water & Sewage Pricing

Definition:

Description (in kL) of the step and price per unit (kL)

Reference: NPRF handbook 08-09

Units: kL

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(P1.11),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: PR23

Title: Special Levies ($) - water: description and value of charge

SWIM category: Water & Sewage Pricing

Definition:

Description and value ($) of special levies that may apply. Special levies are any charges that are directly levied upon properties, and are neither a fixed or pay for use charge for water (e.g. environmental improvement levy).

Reference: NPRF handbook 08-09

Units: $

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(P1.12),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: PR25

Title: Income from Special Levies Retained by Utility? (Yes/No) - water

SWIM category: Water & Sewage Pricing

Definition:

Is the income from Special Levies Retained by Utility? (Yes/No) What about SOME??

Reference: NPRF handbook 08-09

Units: Yes/No

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(P1.13),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: PR26

Title: Annual bill based on 200kL/a - water

SWIM category: Water & Sewage Pricing

Definition:

The typical residential customer's bill based on an annual consumption of 200kL

Reference: NPRF handbook 08-09

Units: $

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: PR38

This indicator is reported/used for: DERM, DIP, NPR(P2), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: PR27

Title: Average Annual Residential Water Supplied

SWIM category: Water & Sewage Pricing

Definition:

This is the same as the value reported for WA12: average annual residential water supplied.

Reference: NPRF handbook 08-09

Units: kL

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(P2.1),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: PR28

Title: Typical Residential Bill - water

SWIM category: Water & Sewage Pricing

Definition:

The dollar amount of the typical RESIDENTIAL water bill for the financial year. This information is premised on the average annual residential consumption for a full-paying customer.

Calculation:

Typical Residential Bill = residential water access charge + residential water usage charge for the average residential consumption.

Reference: NPRF handbook 08-09

Units: $

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: PR39

This indicator is reported/used for: DERM, DIP, NPR(P3),

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: PR29

Title: Number of Meter Readings per annum - water

SWIM category: Water & Sewage Pricing

Definition:

The number of times a residential customer's meter is read per year.

Reference: NPRF handbook 08-09

Units: {Count}

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(P3.1),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: PR30

Title: Number of Bills per annum - water

SWIM category: Water & Sewage Pricing

Definition:

The number of times a residential customer receives a water bill in a year

Reference: qldwater Directorate

Units: {Count}

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(P3.2),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

3.20 Pricing – sewerage

SWIM code: PR4

Title: Tariff Structure (description)

SWIM category: Water & Sewage Pricing

Definition:

This indicator provides a brief description of the tariff structures for residential customers. Examples include inclining tiered tariff, fixed charge only

Reference: NPRF handbook 08-09

Units: NA

Comparison to SWIM definition 07-08: same

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(P4),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: PR31

Title: Fixed Charge - sewerage: description of basis for charge and value of charge

SWIM category: Water & Sewage Pricing

Definition:

The fixed amount the business levies on a residential property per year. This is the component of each residential property's bill that does not vary with the amount of sewage produced.

The basis for the fixed charge is to be provided (e.g. percentage of property value, meter sizes) and the value ($).

Reference: NPRF handbook 08-09

Units: NA

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(P4.1),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: PR32

Title: Usage Charge - sewerage (value)

SWIM category: Water & Sewage Pricing

Definition:

The charge per unit of consumption levied upon a residential customer for their use. This is

expressed as dollars per kilolitre.

Reference: NPRF handbook 08-09

Units: $/kL

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(P4.2),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: PR33

Title: Special Levies ($) - sewerage: description of levies and value

SWIM category: Water & Sewage Pricing

Definition:

Description and value ($) of special levies that may apply. Special levies are any charges that are directly levied upon properties, and are neither a fixed or pay for use charge for sewage (e.g. environmental improvement levy).

Reference: NPRF handbook 08-09

Units: NA

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(P4.3),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: PR34

Title: Income from Special Levies Retained by Utility? (Yes/No) - sewerage

SWIM category: Water & Sewage Pricing

Definition:

Is the income from Special Levies Retained by Utility? (Yes/No) What about SOME??

Reference: NPRF handbook 08-09

Units: Yes/No

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(P4.4),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: PR35

Title: Annual bill based on 200kL/a - sewerage

SWIM category: Water & Sewage Pricing

Definition:

The typical residential customer's bill based on an annual consumption of 200kL

Reference: NPRF handbook 08-09

Units: $

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: PR38

This indicator is reported/used for: DERM, DIP, NPR(P5), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: PR36

Title: Typical Residential Bill - sewerage

SWIM category: Water & Sewage Pricing

Definition:

The dollar amount of the typical RESIDENTIAL sewerage bill for the financial year.

Reference: NPRF handbook 08-09

Units: $

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: PR39

This indicator is reported/used for: DERM, DIP, NPR(P6),

If used in NPR reporting, is this an auditable indicator? yes

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: PR37

Title: Number of Bills per annum - sewerage

SWIM category: Water & Sewage Pricing

Definition:

The number of times a residential customer receives a sewerage bill in a year

Reference: NPRF handbook 08-09

Units: {Count}

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(P6.1),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

3.21 Pricing - water and sewerage

SWIM code: PR38

Title: Annual bill based on 200kL/a (water & sewerage)

SWIM category: Water & Sewage Pricing

Definition:

This is the typical residential customer's bill based on an annual consumption of 200kL

Example

Annual average residential bill water and sewerage based on 200kL consumption, where:

- Sewerage fixed charge = $100 p.a. (no consumption charge)

- Water fixed charge = $50 p.a.

- Water pay for use charge = $1/kL = $1 x 200kL = $200

Therefore annual residential bill for 200 kL = $100 + $50 + $200 = $350

Reference: NPRF handbook 08-09

Units: $

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(P7), SWIM WSP comparative report

If used in NPR reporting, is this an auditable indicator? derived from PR26 and PR35 NPR P7

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

SWIM code: PR39

Title: Typical Residential Bill (water & sewerage)

SWIM category: Water & Sewage Pricing

Definition:

The dollar amount of the typical RESIDENTIAL water and sewerage bill for the financial year. This information is premised on the average annual residential

consumption for a full-paying customer.

Calculation:

Typical Residential Bill = Residential sewerage charge + residential water access charge + residential water usage charge for the average residential consumption.

Example:

Typical residential bill water and sewerage, where:

- Sewerage fixed charge = $100 p.a. (no consumption charge)

- Water fixed charge = $50 p.a.

- Average residential consumption per property = 300kL (calculated from

- Average annual residential water supplied per property", indicator W12)

- Water pay for use charge = $1/kL = $1 x 300kL = $300

Therefore typical residential bill water and sewerage = $100 + $50 + $300 = $450

Reference: NPRF handbook 08-09

Units: $

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: DERM, DIP, NPR(P8),

If used in NPR reporting, is this an auditable indicator? derived from PR28 and PR36 NPR P8

Reporting frequency: annual

Sampling/collection frequency: annual

Spatial resolution of data: WSP-wide

3.22 Watercourses

SWIM code: SW1

Title: Instantaneous watercourse level, expressed in metres relative to specified datum, and the time of the observation.

SWIM category: Surfacewater

Definition:

Instantaneous watercourse level, expressed in metres relative to specified datum, and the time of the observation.

Reference: BoM

Units: m

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: , BoM(1a),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: daily

Sampling/collection frequency: as available

Spatial resolution of data: stream gauge

SWIM code: SW2

Title: Instantaneous watercourse discharge, expressed in cumecs, and the time of the observation.

SWIM category: Surfacewater

Definition:

Instantaneous watercourse discharge, expressed in cumecs, and the time of the observation.

Reference: BoM

Units: m3/s

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: , BoM(1b),

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: daily

Sampling/collection frequency: as available

Spatial resolution of data: stream gauge

3.23 Groundwater

SWIM code: GW1

Title: Groundwater level of a bore, expressed in metres relative to specified datum, and the time of the observation.

SWIM category: Groundwater

Definition:

Groundwater level of a bore, expressed in metres relative to specified datum, and the time of the observation.

Reference: BoM

Units: m

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: BoM(2a)

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: monthly

Sampling/collection frequency: as available

Spatial resolution of data: groundwater bore

SWIM code: GW2

Title: Groundwater pressure of a bore, expressed in kilopascals, the aquifer layer and depth at which the pressure is measured, and the time of the observation.

SWIM category: Groundwater

Definition:

Groundwater pressure of a bore, expressed in kilopascals, the aquifer layer and depth at which the pressure is measured, and the time of the observation.

Reference: BoM

Units: kPa

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: BoM(2b)

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: monthly

Sampling/collection frequency: as available

Spatial resolution of data: groundwater bore

3.24 Water storages

SWIM code: ST1

Title: Level of water held in a major storage, expressed in metres relative to specified datum, and the time of the observation.

SWIM category: Storages

Definition:

Level of water held in a major storage (>1GL), expressed in metres relative to specified datum, and the time of the observation.

Reference: BoM

Units: m

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: BoM(3a)

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: daily

Sampling/collection frequency: daily

Spatial resolution of data: major storages

SWIM code: ST2

Title: Volume of water held in each major storage, expressed in megalitres, and the time of the observation.

SWIM category: Storages

Definition:

Volume of water held in each major storage (>1GL), expressed in megalitres, and the time of the observation.

Reference: BoM

Units: ML

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: BoM(3b)

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: daily

Sampling/collection frequency: daily

Spatial resolution of data: major storages

SWIM code: ST3

Title: Total daily volume of water released from a major storage to a watercourse, expressed in ML per day, start and finish times and date of the observation.

SWIM category: Storages

Definition:

Total daily volume of water released from a major storage (>1GL) to a watercourse, expressed in ML per day, start and finish times and date of the observation.

Reference: BoM

Units: ML

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: BoM(3c)

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: daily

Sampling/collection frequency: daily

Spatial resolution of data: major storages

SWIM code: ST4

Title: Total daily volume of water transferred between major storages, expressed in megalitres per day, the start and finish and finish times of the observation, and the date of the observation.

SWIM category: Storages

Definition:

Total daily volume of water transferred between major storages (>1GL), expressed in megalitres per day, the start and finish and finish times of the observation, and the date of the observation.

Reference: BoM

Units: ML

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: BoM(3d)

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: daily

Sampling/collection frequency: daily

Spatial resolution of data: major storages

SWIM code: ST5

Title: Volume of water held in a minor storage, expressed in megalitres, and the time of the observation.

SWIM category: Storages

Definition:

Volume of water held in a minor storage (100ML-1GL), expressed in megalitres, and the time of the observation.

Reference: BoM

Units: ML

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: BoM(3e)

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: daily

Sampling/collection frequency: daily

Spatial resolution of data: minor storages

3.25 Meteorology

SWIM code: MT1

Title: Accumulated precipitation depth for a specified time interval, expressed in millimetres, and the time of the observation.

SWIM category: Meteorology

Definition:

Accumulated precipitation depth for a specified time interval, expressed in millimetres, and the time of the observation.

Reference: BoM

Units: mm

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: BoM(4a)

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: daily

Sampling/collection frequency: daily

Spatial resolution of data: as available

SWIM code: MT2

Title: Total daily evaporation from a Class A evaporation pan, expressed in mm per day, the start and finish times of the observation, and date of the observation.

SWIM category: Meteorology

Definition:

Total daily evaporation from a Class A evaporation pan, expressed in mm per day, the start and finish times of the observation, and date of the observation.

Reference: BoM

Units: mm/day

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: BoM(4c)

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: daily

Sampling/collection frequency: daily

Spatial resolution of data: as available

3.26 Stormwater

SWIM code: UW1

Title: The total volume of stormwater discharges from a stormwater discharge point into a watercourse, expressed in megalitres per week, the start and finish times, and dates of the observations.

SWIM category: Urban Water

Definition:

The total volume of stormwater discharges from a stormwater discharge point into a watercourse, expressed in megalitres per week, the start and finish times, and dates of the observations.

Reference: BoM

Units: ML

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: BoM(7o)

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: annual

Sampling/collection frequency: weekly

Spatial resolution of data: stormwater discharge point

3.27 Water quality

SWIM code: WQ1

Title: The instantaneous electrical conductivity of a water sample collected above the tidal limit of the watercourse, expressed in microsiemens per centimetre at 25 degrees Celsius, and the time of the observation.

SWIM category: Water Quality

Definition:

The instantaneous electrical conductivity of a water sample collected above the tidal limit of the watercourse, expressed in microsiemens per centimetre at 25 degrees Celsius, and the time of the observation.

Reference: BoM

Units: microsiemens

Comparison to SWIM definition 07-08: new (to SWIM)

This indicator is used to derive the following indicators: none (reported as is)

This indicator is reported/used for: BoM(9a)

If used in NPR reporting, is this an auditable indicator? no

Reporting frequency: daily

Sampling/collection frequency: daily

Spatial resolution of data: as available

SWIM code: WQ2

Title: The instantaneous electrical conductivity of a ground water sample collected above the tidal limit of the watercourse, expressed in microsiemens per centimetre at 25 degrees Celsius, and the time of the observation.

SWIM category: Water Quality

Definition:

The instantaneous electrical conductivity of a ground water sample collected above the tidal limit of the watercourse, expressed in microsiemens per centimetre at 25 degrees Celsius, and the time

of the observation.
Reference: BoM
Units: microsiemens
Comparison to SWIM definition 07-08: new (to SWIM)
This indicator is used to derive the following indicators: none (reported as is)
This indicator is reported/used for: BoM(9b)
If used in NPR reporting, is this an auditable indicator? no
Reporting frequency: annual
Sampling/collection frequency: as available
Spatial resolution of data: as available

SWIM code: WQ3
Title: The instantaneous total suspended solids concentration of a water sample collected above the tidal limit of a watercourse, expressed in milligrams per litre, and the time of the observation.
SWIM category: Water Quality
Definition:
The instantaneous total suspended solids concentration of a water sample collected above the tidal limit of a watercourse, expressed in milligrams per litre, and the time of the observation.
Reference: BoM
Units: mg/L
Comparison to SWIM definition 07-08: new (to SWIM)
This indicator is used to derive the following indicators: none (reported as is)
This indicator is reported/used for: BoM(9c)
If used in NPR reporting, is this an auditable indicator? no
Reporting frequency: annual
Sampling/collection frequency: as available
Spatial resolution of data: as available

SWIM code: WQ4
Title: Instantaneous turbidity of a water sample collected above the tidal limit of a watercourse, in nephelometric turbidity units, and time of observation.
SWIM category: Water Quality
Definition:
Instantaneous turbidity of a water sample collected above the tidal limit of a watercourse, in nephelometric turbidity units, and time of observation.
Reference: BoM
Units: NTU
Comparison to SWIM definition 07-08: new (to SWIM)
This indicator is used to derive the following indicators: none (reported as is)
This indicator is reported/used for: BoM(9d)
If used in NPR reporting, is this an auditable indicator? no
Reporting frequency: annual
Sampling/collection frequency: as available
Spatial resolution of data: as available

SWIM code: WQ5
Title: The instantaneous total P concentration of a water sample collected above the tidal limit of a watercourse, expressed in mg/L, and the time of observation.
SWIM category: Water Quality
Definition:
The instantaneous total P concentration of a water sample collected above the tidal limit of a

watercourse, expressed in mg/L, and the time of observation.
Reference: BoM
Units: mg/L
Comparison to SWIM definition 07-08: new (to SWIM)
This indicator is used to derive the following indicators: none (reported as is)
This indicator is reported/used for: BoM(9e)
If used in NPR reporting, is this an auditable indicator? no
Reporting frequency: annual
Sampling/collection frequency: as available
Spatial resolution of data: as available

SWIM code: WQ6
Title: The instantaneous total N concentration of a water sample collected above the tidal limit of a watercourse, expressed in mg/L, and the time of observation.
SWIM category: Water Quality
Definition:
The instantaneous total N concentration of a water sample collected above the tidal limit of a watercourse, expressed in mg/L, and the time of observation.
Reference: BoM
Units: mg/L
Comparison to SWIM definition 07-08: new (to SWIM)
This indicator is used to derive the following indicators: none (reported as is)
This indicator is reported/used for: BoM(9f)
If used in NPR reporting, is this an auditable indicator? no
Reporting frequency: annual
Sampling/collection frequency: as available
Spatial resolution of data: as available

SWIM code: WQ7
Title: The instantaneous pH of a water sample collected above the tidal limit of a watercourse, and the time of the observation.
SWIM category: Water Quality
Definition:
The instantaneous pH of a water sample collected above the tidal limit of a watercourse, and the time of the observation.
Reference: BoM
Units: pH
Comparison to SWIM definition 07-08: new (to SWIM)
This indicator is used to derive the following indicators: none (reported as is)
This indicator is reported/used for: BoM(9g)
If used in NPR reporting, is this an auditable indicator? no
Reporting frequency: annual
Sampling/collection frequency: as available
Spatial resolution of data: as available

SWIM code: WQ8
Title: Instantaneous temperature of a water sample collected above the tidal limit of a watercourse, expressed in degrees Celsius, and the time of observation.
SWIM category: Water Quality
Definition:
Instantaneous temperature of a water sample collected above the tidal limit of a watercourse,

expressed in degrees Celsius, and the time of observation.
Reference: BoM
Units: C
Comparison to SWIM definition 07-08: new (to SWIM)
This indicator is used to derive the following indicators: none (reported as is)
This indicator is reported/used for: BoM(9h)
If used in NPR reporting, is this an auditable indicator? no
Reporting frequency: annual
Sampling/collection frequency: as available
Spatial resolution of data: as available

4 APPENDIX: BoM Water regulations - definitions

Australian water access enTitlement means a perpetual or ongoing en**Title**ment, by or under a law of a State, to exclusive access to a share of the water resources of a water resource plan area or other water management area.
Australian water allocation means the specific volume of water allocated to an Australian water access en**Title**ment in a given water accounting period.
Commercial water means the total amount of metered and estimated non metered, potable and non potable, water supplied to commercial properties.
Downward longwave exposure means the total amount of terrestrial electromagnetic energy that falls on a specified unit horizontal surface.
Downward longwave irradiance means the longwave irradiance emitted from the sky that falls on a specified unit horizontal surface.
Dry bulb air temperature means the temperature of air measured by a thermometer freely exposed to the air but shielded from radiation and moisture.
Electrical conductivity, in relation to a water sample, means the ability of the water in the sample to conduct an electrical current.
Exposure means the measure of the energy received per unit area.
Global solar exposure means the total amount of electromagnetic energy emitted from the sun that falls on a specified unit horizontal surface.
Global solar irradiance means the irradiance emitted from the sun that falls on a specified unit horizontal surface.
Industrial water is the total amount of metered and estimated non metered, potable and non potable, water supplied to industrial properties.
Irradiance means the measure of the rate of electromagnetic energy received per unit area.
Minor storage means any water storage in which water is stored for taking and that meets the following criteria:
(a) it is not a major storage;
(b) it has a storage capacity of 100 ML or more;
(c) it is not used primarily for the precipitation of ash;
(d) it is not a mine tailings dam;
(e) it is not managed by an urban infrastructure operator primarily for the purposes of flood management or pollution abatement.
Municipal water means the total amount of metered and estimated non metered, potable and non potable, water supplied for municipal purposes.
Net exposure means the net global solar exposure plus the net longwave exposure.
Net global solar exposure means the global solar exposure less the reflected global solar exposure.
Net global solar irradiance means the global solar irradiance less the reflected global solar irradiance.
Net irradiance means the net global solar irradiance plus the net longwave irradiance.
Net longwave exposure means the downward longwave exposure less the upward longwave exposure.
Net longwave irradiance means the downward longwave irradiance less the upward longwave exposure.
Reflected global solar exposure means the total amount of electromagnetic energy emitted from the sun that is reflected from the ground and irradiates a specified unit horizontal surface from underneath.
Reflected global solar irradiance means the irradiance emitted from the sun that is reflected from the ground and irradiates a specified unit horizontal surface from underneath.
Residential water means the total amount of metered and estimated non metered, potable and non potable water supplied to residential properties.
Self extract means to take water directly from a water resource for the use of the person who takes the water, but does not include taking water:
(a) to provide it to another person; or
(b) under a stock and domestic right; or
(b) from an infrastructure operator.
Tidal limit, in relation to a watercourse, means the maximum upstream location on that watercourse at which a tidal variation in water level is observed.

Total nitrogen, in relation to a water sample, means the measure of all forms of nitrogen found in the water sample, including nitrate, nitrite, ammonia N and organic forms of nitrogen.
Total phosphorus, in relation to a water sample, means the total concentration of all forms of phosphorus found in the water sample.
Total suspended solids, in relation to a water sample, means the measure of the particles mixed in the water sample.
Turbidity, in relation to a water sample, means the amount of small particles of solid matter suspended in the water sample, measured by the amount of scattering and absorption of light rays caused by the particles.
Upward longwave exposure means the total amount of terrestrial electromagnetic energy emitted from the Earth's surface that irradiates a specified unit horizontal surface from underneath.
Upward longwave irradiance means the longwave irradiance emitted by the Earth's surface that irradiates a specified unit horizontal surface from underneath.
Urban water means the total residential, commercial, municipal, industrial and other water supplied by urban water utilities.
Vapour pressure deficit means the difference between the amount of moisture in the air and how much moisture the air can hold when it is saturated.
Water management area means any area defined for the purposes of water management, including a water resource plan area.
Wet bulb air temperature means the temperature of air measured by a thermometer that has its bulb wrapped in wet muslin.
Wind run means the product of the average wind speed and the period over which that average speed was measured

General comments about terminology (extract from BoM information Bulletin, 22 Dec 2008)

It has come to our attention that the common urban water management terms listed below are currently not defined adequately, and in some cases are not defined or referred to in the Regulations. We have included our definitions of these terms in this Bulletin to assist you in understanding the information we require now or may require in the future. The terms should be read with reference to the table of subcategories that follows.

Non-revenue water is the amount of water not accounted for by billed water use metering. It may include delivery systems losses such as leakage from water mains, water stolen or unaccounted for due to inaccurate meters, water used for fire-fighting purposes and water used for cleaning water mains.

Recycled water is water generated from sewage, greywater or stormwater systems that is treated as required then used as a water supply source.

Sewage is waste from residential and non-residential properties collected and/or treated via sewerage infrastructure. It includes any volumes collected in the sewerage system due to stormwater, illegal connection inflow and infiltration to the sewerage system. It covers both untreated and treated sewage but does not include sewage treatment plant effluent that is subsequently recycled.

Take: This term is defined in the Water Act 2007 but it has generated some confusion. In Category 7, the term “volume of water taken” refers to the water that the named urban water utility extracts from a particular water source. It does not include the water extracted by another infrastructure operator on its behalf.

Reporting period: You may not currently hold data in the weekly reporting period specified in the Regulations. Please supply data in the shortest reporting period available if that is longer than one week.

Potable and non-potable water: Under Regulations subcategories 7h – 7m, please report separate values for potable and non-potable where you have that information.

Comments about specific BoM indicators (extract from BoM information Bulletin, 22 Dec 2008)

Subcategory no.	Subcategory information	Clarification comment
7b	The total weekly volume of water taken from groundwater, expressed in megalitres per week, the start and finish times of the observations, and dates of the observations.	7b includes the portion of groundwater volume originating from artificial recharge and desalinated groundwater.
7c	The total weekly volume of water taken from desalination, expressed in megalitres per week, the start and finish times of the observations, and dates of the observations.	7c only includes water taken from marine desalination and therefore excludes desalinated groundwater.
7d	The total weekly volume of water taken from recycling, expressed in megalitres per week, the start and finish times of the observations, and dates of the observations.	7d includes the total amount of recycled water taken from your organisation's sewerage infrastructure (e.g. sewage treatment plant) and used for supply either to your customers or to another water utility as a bulk recycled water supply. It also includes recycled water used by your own organisation but not supplied to a customer.
7e	The total weekly volume of water received from infrastructure operators, expressed in megalitres per week, the start and finish times of the observations, and dates of the observations.	7e refers to water supplied to you from another organisation, such as a bulk water utility and/or neighbouring water utility. The water may or may not have been purchased. The main point is that another organisation has provided your organisation with the water. The volume includes water which is subsequently exported to another water utility. 7e excludes purchased recycled water which is included in 7f. It also excludes water that is included in "volume of water taken" under subcategories 7a, 7b, 7c and 7d.
7f	The total weekly volume of bulk recycled water purchased, expressed in megalitres per week, the start and finish times of the observations, and dates of the observations.	7f includes the total amount of recycled water received by your organisation from another organisation (infrastructure operator). The water may or may not have been purchased. The main point is that another organisation provided you with the recycled water, rather than you directly taking it from your own sewerage infrastructure (e.g. sewage treatment plant).
7h	The total weekly volume of residential water supplied, expressed in megalitres per week, the start and finish times of the observations, and dates of the observations.	7h includes both potable and non-potable water, supplied to residential customers located within your organisation's management area. The volume includes both total metered and estimated non-metered residential water supplied.
7i	The total weekly volume of commercial, municipal and industrial water supplied, expressed in megalitres per week, the start and finish times of the observations, and dates of the observations.	7i includes both potable and non-potable water supplied to commercial, municipal and industrial customers located within your organisation's management area. The volume includes both total metered and estimated non-metered commercial, municipal and industrial water supplied.

7j	The total weekly volume of water supplied, other than residential, commercial, municipal and industrial water, expressed in megalitres per week, the start and finish times of the observations, and dates of the observations.	7j includes all the potable and non-potable water supplied to customers other than residential, commercial, municipal and industrial customers located within your organisation's management area. It also includes non-revenue water (see definition on page 2). "Other" may include agricultural or horticultural customers. The types of use falling into the "other" category should be specified in Category 10e: Metadata about other water information. The volume includes both total metered and estimated non-metered 'other water' supplied.
7k	The total weekly volume of urban water supplied, expressed in megalitres per week, the start and finish times of the observations, and dates of the observations.	7k includes all potable and non-potable water supplied to residential, commercial, municipal and industrial, and other customers. Note that 7k includes the non-revenue water which has been reported as part of 7j. The volume includes total metered and estimated non-metered urban water supplied.
7l	The total weekly volume of bulk water exports, expressed in megalitres per week, the start and finish times of the observations, and dates of the observations.	7l is the bulk, non-recycled, potable and non-potable water delivered to another water utility or infrastructure operator for the purposes of supplying their customers. Usually this water will be exported outside your organisation's jurisdictional boundaries. To prevent overlap with Category 7m, this data should not include the bulk recycled water exports which are reported in Category 7m.
7m	The total weekly volume of bulk recycled water exports, expressed in megalitres per week, the start and finish times of the observations, and dates of the observations.	7m refers to the volume of recycled water (potable and non-potable) delivered to another water utility or infrastructure operator for the purpose of suppling recycled water to their customers. This exported bulk recycled water could subsequently be used for urban and non-urban uses.
7n	The total weekly volume of sewage discharges from a sewage discharge point into a watercourse, expressed in megalitres per week, the start and finish times of the observations, and dates of the observations.	Note the definition of "sewage" on page 2 which is broader than just untreated sewage. When reporting sewage discharge into a watercourse, please report all sewage discharge including: (1) surface water or ocean within or adjacent to the organisation's geographic area of responsibility (2) sewerage infrastructure operated by another organisation. This data includes all discharges of sewage treatment plant effluent into watercourses and marine water bodies and sewage exported to another sewerage infrastructure operator.
7o	The total weekly volume of stormwater discharges from a stormwater discharge point into a watercourse, expressed in megalitres per week, the start and finish times of the observations, and dates of the observations.	When reporting stormwater discharge into a watercourse, please report all sewage discharge including: (1) surface water or ocean within or adjacent to the organisation's geographic area of responsibility (2) the stormwater drainage system operated by another organisation. This data includes all discharges of stormwater into watercourses and marine water bodies and stormwater exported to another stormwater drainage system operator.